Prepared by an occupational analyst of the Utah Department of Employment Security, this manual provides job guides for 39 health service occupations concerned mainly with doctors, nurses, and related hospital-medical-health consultants and services. Classified according to "The Dictionary of Occupational Titles," each occupational description contains: (1) nature of the work and job duties, (2) employment locations, (3) educational and training requirements, (4) salary, (5) required personal characteristics and physical activities, (6) employment outlook, and (7) sources of additional occupational information. Managers and addresses are listed for local employment service offices. (SR)
SELECTED HEALTH SERVICE OCCUPATIONS

THE UTAH STATE EMPLOYMENT SERVICE IS AFFILIATED WITH THE UNITED STATES EMPLOYMENT SERVICE. OFFICES ARE MAINTAINED AT BRIGHAM CITY, CESAR CITY, HEBER, LOGAN, MoAB, OGDEN, PANGUITCH, PRICE, PROVO, RICHHFIELD, SALT LAKE CITY, AND VERNAL, UTAH.

UTILITY DEPARTMENT OF EMPLOYMENT SECURITY
174 SOCIAL HALL AVENUE — SALT LAKE CITY, UTAH 84113
Selected

HEALTH SERVICE OCCUPATIONS.

An occupational information report of thirty-eight related Job Guides in the Utah Health Service Industry

Prepared 1 May 1966
by Arthur D. Coleman
Occupational Analyst
Industry Services Section

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SELECTED HEALTH SERVICE OCCUPATIONS

Job guides included in this classification are concerned mainly with doctors, nurses and related Hospital-Medical-Health consultants and services. Space limitations preclude the inclusion of many areas of specialization that have appeared during the past decade. However most specialities will be broadly covered in some major classifications.

Perhaps a good example of this spiralling trend of specialization is found in the occupation of the family doctor. The general practitioner of our grandparents' generation is a lonesome person; as today's young physician with his internship completed, chooses his specialized life career from at least twenty modern fields of medicine. In alphabetical order these are:

- Anesthesiology
- Dermatology
- Internal Medicine
- Neurologic surgery
- Obstetrics and Gynecology
- Occupational Medicine
- Ophthalmology
- Orthopedic surgery
- Otolaryngology
- Pathology
- Pediatrics
- Physical Medicine and Rehabilitation
- Plastic surgery
- Proctology
- Preventive Medicine and Public Health
- Psychiatry
- Radiology
- Surgery
- Urology
- and others.

Health Service Activities appear early in the recorded history of Utah. We are told that on the first day (July 24, 1847) the Pioneers entered the Valley of the Great Salt Lake
their leader, Brigham Young, ill with mountain fever, was being cared for in a bed prepared for him in one of the Covered Wagons. Now (1966) there are over 5,000 hospital beds within the state.

The people of Utah maintain a Medical Center at the University of Utah in Salt Lake City. Included in this modern medical research and training complex are the University Hospital, with its various departments, the Medical Library and the Colleges of Medicine and Nursing.

The Utah State Health Department supervises district health offices throughout the state and promotes various public health service programs as well as the Birth and Death Certifications, the Mental Health Division and the Preventative Medicine Division.

The Department of Registration of the Utah Business Regulation Agency is charged by law to examine, license, register and establish standards of performance for a number of professions and occupations in order that the state's citizens might be safeguarded. Over 15,000 annual licenses have been issued in each of the past several years to Health Service people.
The largest occupation numerically to be licensed in Utah is that of the professional Registered Nurse; other licensed health occupations in descending numerical order are Practical Nurses, Physicians, Pharmacists, Dentists, Nursing Home Operators, Drug Store Operators, Funeral Directors, Embalmers, Veterinarians, Optometrists, Chiropractors, Psychologists, Sanitarians, Osteopaths, Naturopaths, Physical Therapists, Chiroprodists and Dental Hygienists.

Salt Lake, Ogden, Provo and other cities maintain Municipal Health Departments. The State of Utah operates a Food and Sanitation Inspection Service as well as the State Mental Hospital at Provo, the Training School for Mental deficients at American Fork and the Tuberculosis Sanatorium at Ogden. Several counties, religious and non-profit organizations also conduct health-medical or hospital services.

Some fifteen thousand people (about 4% of Utah's 375,000 civilian labor force) currently earn their living, employed by 1300 employers from Health Service Occupations. About three-fourths of these employers hire less than four workers, some of which may be part-time employees and consequently tend to reduce wage statistics and averages.

A recent issue of the Utah Labor Market Quarterly (prepared by the Utah Department of Employment Security) reports the average monthly wage of some 9-10,000 employees of private hospitals, doctors, dentists, nursing homes and related health services, was $246.00. A large proportion of these were service and clerical employees. 1500 employees of 11 local government establishments were reported to average $253 a month. 1700 employees of State and Federal Government establishments, $482 a month, probably because a much higher proportion of the government employees were professional and technical workers.

The classification system used in coding the health occupations is provided by the Third Edition (1965) of the Dictionary of Occupational Titles published by the Manpower Administration of the U. S. Department of Labor.

The future prospects for employment in one of the Health Service Occupations is good. If one has the aptitude, intelligence and the financial resources for eighteen to twenty years of study and training, he may aspire to be a physician or medical scientist. If fifteen or sixteen years of schooling and preparation seem to be a limit, then professional nursing or such technical work as X-ray Technician or Medical Technologist may be a goal. If one's educational background is more limited, there are positions such as Nurse Aid, Orderly, Maintenance Man, Housekeeper, and others that may be interesting.
The Utah Department of Employment Security acknowledges the cooperation and assistance provided by the various Health, Medical and Hospital Associations, organizations and individuals in the preparation of these Job Guides. Not only have local and state facilities provided data but also regional and national sources of information have been utilized in this compilation.

Arthur D. Coleman
Occupational Analyst
Utah Department of Employment Security

**UTAH JOB GUIDES FOR HEALTH SERVICE OCCUPATIONS**
(Alphabetical Listing)

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<th>Job Title</th>
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<th>Old DOT Code</th>
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<td>X Ray Technician</td>
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The occupation of admitting officer is concerned with the business relationship between the patient and the hospital.

**NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB**

The admitting officer makes reservations and determines hospital privileges of physician making reservation by checking against a staff list. Information identifying physician and patient, type of accommodation desired, insurance coverage, date of admission, and type and date of operation if case is surgical in nature, is recorded. The list of unoccupied beds is reviewed and pre-admission reservations made according to type of case and accommodation desired. Frequently admission forms are forwarded to patients to be filled out in advance of hospitalization.

The admitting officer admits and interviews patients or obtains identifying and biographical information from relative, or other responsible individual. Hospital regulations are interpreted to patient concerning visitors, visiting hours, and disposition of clothing and valuables. Rates, charges, services, discounts, and hospital policy regarding payment of bills is explained. Particular hospital divisions are notified to expect patient and arranges for escort of patient to room or ward station.

The admitting officer assigns bed and explains emergency room charges and arranges for acceptance of payment. Enters information on record books and forwards cash to business office. Explains differences in rates and charges to patients desiring change of accommodations; and arranges for change. May obtain signature for operations from legally responsible relatives. Notifies pertinent departments of admission in accordance with established procedures.

The admitting officer determines financial status for admission. Discusses methods and procedures for payment. Confers with community agencies or relief agencies. Obtains signature of individual responsible for payment of hospital charges. Verifies patient's insurance coverage and explains benefit allowed under terms of policy.

The admitting officer prepares and maintains perpetual-occupancy census records; current bed index of assigned and vacant rooms and ward beds with name of patient and physician in attendance, date of admission, hospital and room numbers. Patient index card is forwarded to telephone operator, information card to business office, and admission card to medical record library. Admitting office personnel are supervised and assigned duties. Final selection of applicants for admitting office positions are made and work schedules prepared.

The admitting officer coordinates admitting procedures with activities of other departments. Places patient's valuables in office safe and issues receipt. Obtains receipt for bodies claimed by undertaker and may secure autopsy permits from responsible relatives. May answer inquiries concerning condition of patient in accordance with regulations governing divulgence of such information. May notify family when patient is placed on critical list and contact police in connection with admission of certain patients.

WHERE ARE ADMITTING OFFICERS EMPLOYED IN UTAH?

The majority of Utah's Admitting Officers are employed in the business offices of the larger hospitals in the Salt Lake - Ogden - Provo areas.
WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR ADMITTING OFFICERS?

The education requirements specified by most hospital employers include graduation from a recognized college or university with course work in psychology, sociology, and personnel or business administration and related fields. One year of admitting experience in an accredited hospital or social agency is usually required. The admitting officer should have a general knowledge of hospital procedure and be familiar with principles of applied psychology and techniques of interviewing.

HOW MUCH DO ADMITTING OFFICERS EARN IN UTAH?

There is considerable variation in salaries earned in this occupation. The reason being the extent of responsibility assigned - in the larger hospitals the admitting officer may not only discharge these duties full time but also supervise other staff while in some smaller hospitals it amounts to a relatively minor part-time task. The usual range of wages occurs in the $5,000 to $7,000 a year bracket.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The admitting officer has responsibility for courteous service and to create favorable impression in minds of patients. Securing signatures of legally responsible individuals when necessary to protect hospital from possible lawsuits is another responsibility.

The admitting officer should have ability to deal with disturbed patients, visitors, and relatives. Hospital procedures are well standardized, although worker adapts interview to type of patient being admitted. May be required to work different shifts, holidays, or Sundays. Must be physically able to stand, walk and assist with patient baggage.

WHAT IS THE EMPLOYMENT OUTLOOK FOR ADMITTING OFFICERS?

This numerically small but important occupation is expected to share with other medical health occupations in general growth. New hospitals are scheduled for construction and old ones are being remodelled and expanded to care for the growing demands by people of all ages. The inexperienced worker will find more job opportunities as an assistant admitting officer gaining promotion as the experienced personnel move to more responsible administrative positions.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations.
AMBULANCE DRIVER

The Ambulance Driver transports sick or injured people to a hospital or other destination in an emergency vehicle, renders first aid, and drives with siren sounding to secure right-of-way over other traffic.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Ambulance Driver transports convalescent, sick and injured persons by ambulance and calls for patients at their homes or transports patients from hospital to home or other hospital. Places or assists in placing patient on wheel stretcher and covers patient with blanket. Wheels patient to ambulance and assists in positioning stretcher in vehicle.

Drives ambulance rapidly during emergency, usually not being required to conform to standard traffic regulations. May administer first aid and assist in shackling violent patients as well as perform related duties.

The ambulance driver maintains his vehicle in efficient operating condition and mops and cleans inside of ambulance. Makes minor mechanical repairs and adjustments. Replaces linen on stretcher and collects clean bedding for each trip. May carry soiled medical instruments to be sterilized, replacing them in ambulance.

WHERE ARE AMBULANCE DRIVERS EMPLOYED IN UTAH?

The majority of ambulance drivers are employed in the state's populous five county area. (Box Elder, Davis, Salt Lake, Utah and Weber) They are employed by municipal police departments, hospitals and Ambulance Service Transportation Companies.

WHAT ARE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB?

Utah employers prefer ambulance drivers with a high-school education which includes courses in first aid and automobile mechanics. Their training and experience should include at least one year of experience driving an automobile. Most workers receive on-the-job training in methods and procedures.

The ambulance driver should be familiar with traffic regulations and location of city streets as well as have a working knowledge of first aid. Must hold chauffeur's license as required by State law and be able to operate a two-way radio.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

The ambulance driver has responsibility for care in moving patients so as not to aggravate condition as well as for safe and efficient driving of the vehicle and mechanical operation of ambulance. Administering first aid in emergency cases is another responsibility. The ambulance driver lifts and carries patients, stoops, and pushes and pulls stretcher. Eye, hand, and foot coordination; color vision and depth perception are aptitudes needed to drive vehicle.

The ambulance driver needs to use tact and sympathy in dealing with a variety of types of patients, many of whom are in disturbed conditions. A willingness to:
assist patients having a variety of types of illnesses. Considerable initiative and judgment is involved in moving patients, administering first aid, and in driving vehicle rapidly through crowded streets.

WHAT IS THE WORKING ENVIRONMENT OF THE AMBULANCE DRIVER IN UTAH EMPLOYMENT?

Spends most of working day in clean, well-lighted, heated, and ventilated office. Drives ambulance in all types of weather. Is subject to traffic hazards, infection from diseased patients, and injury from violent patients.

HOW MUCH DO AMBULANCE DRIVERS EARN WHILE WORKING IN UTAH?

Some variation is noted in the pay scales of ambulance drivers particularly because of the differing methods of assigning standby or residual time duties. The Salt Lake Police Department requires its officers in Grades 1 through 4 to be qualified Ambulance Drivers. Commercial transportation companies report paying their drivers on a call basis with minimum rates based upon both a geographical and time basis. A Salt Lake City ordinance requires that an Ambulance Driver have a first aid certificate.

WHAT IS THE EMPLOYMENT OUTLOOK FOR AMBULANCE DRIVERS IN THIS LABOR AREA?

Ambulance drivers are expected to share with other medical-health service occupations in a steady growth rate. The recent enactment of Medicare legislation seems to emphasize the growing concern of Americans on the subject of better personal health care. Greater concern is now shown in the transportation of injured, sick or invalid persons than ever before.

Recently airplane and motor transport organizations have made reciprocal arrangements for the movement of stretcher patient passengers from most destinations in the world. Telephone directory advertisements announce such other special services as oxygen as well as non-emergency transfers of nursing home patrons, hospital discharges, outpatient department visitors and other users of scheduled ambulance services.

Ambulance drivers, whether operating scheduled or emergency vehicles are expected to increase in number during the next decade at a steady rate. There will also be some job opportunities as a result of turnover when drivers transfer to other assignments or leave because of illness, retirement, etc.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The professional worker, a member of the hospital medical team, who administers any kind of anesthetic to render a patient insensible to pain during a surgical operation is the subject of this job guide.

**NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB**

The anesthesiologist directs activities of anesthesiology department in accordance with accepted national standards and administrative policies. They assign and supervise activities of all department personnel, requisition supplies and equipment, confer with members of surgical staff and with department heads to determine method of anesthesia for each operation. They may conduct studies on effectiveness and usefulness of new techniques and anesthetics.

The anesthesiologist administers various types of anesthetics to render patients insensible to pain during operations, manipulation or setting of fractures, deliveries, and other therapeutic and diagnostic measures. Patients are examined to determine degree of surgical risk, type of anesthesia to be administered, and pre-anesthetic sedation. Advises and consults with physician regarding patient's general condition and risk involved.

The anesthesiologist positions patient on operating table and observes for adverse reactions, advises physician of condition and if necessary, initiates remedial measures. Maintains record of anesthetic and sedation administered, condition of patient prior to and throughout anesthesia, pre-anesthetic and post-anesthetic medication, and condition of patient.

WHERE ARE ANESTHESIOLOGISTS EMPLOYED IN UTAH?

The majority of Utah's anesthesiologists are employed in the operating rooms of the larger hospitals in the Salt Lake - Ogden - Provo Area.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR ANESTHESIOLOGISTS?

Graduation from a medical school approved by the Council on Medical Education and Hospitals of American Medical Association, and a license to practice medicine in the state are required of anesthesiologists who wish to practice in Utah. For certification by American Board of Anesthesiology, the applicant must have 5 years' experience in practice of anesthesiology.

Two years must be carefully supervised instruction in clinical phases of anesthesiology in institution recognized by Council on Medical Education and Hospital of the American Medical Association, plus instruction in anatomy, physiology, pharmacology, biochemistry, and other basic medical sciences.

The anesthesiologist must be familiar with the organization and functions of all departments, as well as the regulations, policies, and procedures of the hospital. Must possess thorough knowledge of principles, literature, standard practices, methods, techniques, and new developments in the field of anesthesiology; physiology and anatomy. The anesthetist operates special equipment and instruments required in all types of anesthesia procedures involved in selection and administration of anesthetics and in corrective treatment for post-anesthetic complications. Must be able to apply principles of good personal administration to selection, placement, and supervision of workers.
WHAT SPECIAL PERSONAL CHARACTERISTICS & PHYSICAL ACTIVITIES ARE REQUIRED?

Anesthesiologists should have a willingness to work with realization that errors may have serious consequences for patient, ability to work with disturbed patients, many of whom are suffering intense pain, and to obtain their confidence and cooperation, considerable initiative and judgment in making decisions regarding anesthesiological methods for each case.

Anesthesiologists should have finger dexterity and eye-hand coordination to handle and manipulate medical instruments and equipment. During some types of surgery, assumes uncomfortable positions which make administration of anesthesia extremely difficult. Visual acuity to recognize symptoms and manifestations of reactions and complications is important. Maintenance of accurate records pertaining to anesthesiological services provided each patient, reflecting type of anesthetic given pre-anesthetic and post-anesthetic medication, and condition of patient prior to, during, and after surgery.

HOW MUCH DO ANESTHESIOLOGISTS EARN IN UTAH?

Anesthesiologists like other professional people who engage in private practice, are reluctant to publicize their exact income. Since fees vary with the length and complexity of the surgical procedures, it is difficult to fix an estimate of an average annual income however limited available data would indicate a range of at least $10,000 to $15,000 for an established professional with an optimum clientele.

Uncertified anesthetists, will during their training or internship period, earn somewhat less. The person just starting to establish a clientele in a new area would undoubtedly have a lower income during the first year or so.

WHAT IS THE EMPLOYMENT OUTLOOK FOR ANESTHESIOLOGISTS IN UTAH?

This small, numerically, but important professional occupation is expected to share in the expansion of medical-health services in this state during the next decade. Individuals with interests and aptitudes in this area will undoubtedly gain much personal and job satisfaction from their decision to choose this profession for their life career.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this and related health occupations. Your school counselor or public library are other sources of information.
ATTENDANT: HOSPITAL, INSTITUTIONAL, OR WARD

The occupation discussed in this job guide is concerned with assisting the professional nursing service personnel in caring for chronically ill patients in a hospital, or institutional ward.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

The attendant directs the activities of mentally retarded children or other homogeneous groups of individuals needing custodial care. Useful activities are planned, and supervised obtaining as much individual participation as possible from group members.

The attendant maintains order within the group of ambulatory patients assigned to the group. Head counts are frequently made to account for the whereabouts, and well being of all members of the group. Charges are escorted to meals, instruction classes, recreational or work areas as appropriate.

The attendant instructs patients in personal grooming. Assists or maintains grooming of patients unable to dress and care for themselves. Inspects patients at regular and frequent intervals for disease, sores, bruises and vermin.

The attendant supervises patients at meal time to assure they receive adequate nourishment. Capable patients are encouraged to assist those less competent and extreme cases are personally helped with feeding problem. Capable patients are supervised and directed in setting tables, removing dishes and washing them.

The attendant directs the cleaning of wards, dormitories, lavatories, dining room and other areas, instructing patients in proper cleaning techniques. Soiled clothes and bedding are sorted and bundled for laundering. Doctors and professional nurses are assisted in caring for injured or sick patients by administering prescribed medications, taking pulse, respiration or temperature and performing related tasks.

WHERE ARE ATTENDANTS (WARD, INSTITUTIONAL OR HOSPITAL) EMPLOYED IN UTAH?

The majority of Utah's ward attendants are employed in governmental institutions located in the Wasatch Front area. Many patients require long term custodial care although efforts at remedial therapy are attempted in contrast to the hospital situation where nurse aides and orderlies help professionals care for short term patients.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR WARD ATTENDANTS?

Most employers prefer high school graduates with good physical and mental health. They seek mature people with tact, patience, and emotional stability who have a desire to assist the chronically ill and can meet difficult situations and perform unpleasant tasks.

The inexperienced person hired to work as a ward attendant will usually receive six to twelve months on-the-job training. During this period an experienced attendant will be available to assist with difficult situations and the Ward Supervisor and other institutional personnel will give careful instructions to be sure the duties of attendant are properly learned.
WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITY ARE REQUIRED?

The ward attendant should have verbal aptitude, numerical ability, clerical perception, motor coordination and manual dexterity. Also required is temperament to perform a variety of tasks. Clear speech and good hearing are needed.

This is considered heavy work as some patients must be lifted while being bathed and dressed. The attendant does considerable walking during the shift. Some shift work may be involved as patients in custodial care must be looked after 24 hours a day.

HOW MUCH DO WARD, INSTITUTIONAL AND HOSPITAL ATTENDANTS EARN IN UTAH?

An inexperienced person starting to work as a ward attendant may expect a salary of about $250 a month during the training period. Experienced attendants report earnings averaging in the neighborhood of $300 a month. Attendants with long tenure and additional responsibilities such as supervision may earn up to a maximum of about $5,000 per year. One meal a day is usually provided the attendant.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION IN THE UTAH LABOR AREA?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services, job opportunities for attendants will undoubtedly share in the increase.

Hospital administrators have determined that professional nursing shortages make it imperative that unlicensed assistants be employed whenever possible. Chronically ill patients are areas where this seems particularly practicable, and certainly enhances the employment opportunities for this occupation.

The number of hospital (and other unlicensed people) attendants employed in Utah at this time is thought to number close to 2,500. Unlicensed nursing personnel will experience, along with the professional nursing staff, a favorable rate of increase. The next ten years may see their number increase to as many as 4,000.

WHERE CAN YOU GO FOR ADDITIONAL OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
This professional occupation is concerned with the performance of chemical tests on parts, fluids and exudates of the human body and the investigation of the chemical processes involved in its functions.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Biochemist performs, or supervises the performance of laboratory technicians and other laboratory employees in making chemical tests on specimens of blood, urine, spinal fluid and other body parts to provide information for diagnosis and treatment. Chemical tests are performed on specimens taken from preoperative surgical and obstetrical patients as well as blood donors and others, to assure accuracy in professional decisions regarding pathological conditions.

The Biochemist analyses and interprets the results of chemical tests reporting his findings to the Pathologist. Established techniques are studied, refined, and modified as necessary to produce more accurate qualitative and quantitative analyses for identifying chemical changes occurring in the human body.

The Biochemist investigates the effect of chemical compounds on physiological processes by testing toxic or therapeutic value of drugs and other materials on laboratory organisms, and by other experiments. Chemical processes are identified which have relationships to the body functions and the various tissues and organs involved. Metabolism of foodstuffs in the body is studied.

The Biochemist studies the characteristics of natural organic products such as enzymes, hormones and vitamins. The chemical aspects of allergy, allergens, antigens, antibodies, serums are studied as well as the related problems of immunology and serology.

The Biochemist may develop new chemicals or drugs for the treatment of disease; may search for causes and cures of a specific disease such as cancer; may instruct and train or prepare educational materials for students of biochemistry, or evaluate their performance as laboratory and research technicians or assistants.

WHERE DO BIOCHEMISTS PRACTICE THEIR PROFESSION IN UTAH?

The majority of Utah's Biochemists are to be found in the laboratories of the hospitals and medical research centers of the five county Wasatch Front area centered in Salt Lake City.

WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS FOR BIOCHEMISTS?

The educational requirements of a Biochemist are Bachelor's degree in chemistry and biochemistry. A master's or doctor's degree is desirable and frequently required for the more responsible assignments. Job knowledge requirements include broad practical and theoretical knowledge of biological chemistry and chemical procedures, thorough understanding of techniques for making chemical tests of patients' body fluids, and effects of drugs and chemicals on body functions, and skill in use of microscope.

Familiarity with personnel management and teaching methods as well as a working knowledge of related medical science subjects is needed by the Biochemist.
At least three years' experience in biochemistry in a medical laboratory under competent supervision is usually required before the entry worker is placed in a position of professional responsibility.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE NEEDED?

The Biochemist had responsibility for: Accuracy of all biochemical tests conducted by technicians; training and supervision of technicians in methods of obtaining specimens from patients; conducting tests to identify chemical composition of body fluids; performance of difficult tests, and interpretation of results as well as investigation of effect and use of drugs and chemicals in treating pathological conditions.

The Biochemist must have a willingness to work with realization that errors may have serious consequences for patients; to work with infectious materials, and skill in use of microscope; and aptitude for conducting original investigations. Tact and adaptability in dealing with medical personnel and patients, and in supervising and training technicians is needed.

Ability to work under pressure when performing tests in emergency cases; considerable initiative and judgment involved in conducting unusual tests, and in devising methods and procedures for detecting disorders in body chemistry are other attributes sought in professional and scientific employees in the Biochemistry discipline.

HOW MUCH DO BIOCHEMISTS EARN BY UTAH PRACTICE?

Generally an inexperienced college graduate with a bachelors degree will be offered in the $4,800 - $5,400 annual range as a starting wage; master's degree about $50 a month higher and a doctor's degree at $600 or $700 a month possibly even close to $9,000 a year with the right kind of experience and background. The National Register for Scientific Personnel reports that Biochemists with ten or more years of experience are receiving on the average of $10,000 or more a year.

WHAT IS THE EMPLOYMENT OUTLOOK FOR BIOCHEMISTS?

The employment outlook is favorable for this numerically small but rapidly growing member of the health service team. The Biochemist's occupation is becoming increasingly more in demand as scientific research intensifies its search for causes and cures for human ills. Job opportunities are present not only in the laboratory but also in teaching and research.

Biochemists are needed to staff the many new hospital and research laboratories now being completed or scheduled for occupancy in the near future. This is one of the basic professions in the effort to alleviate and correct the malfunctioning and abnormalities that beset the human organism. Many challenging job opportunities await the qualified Biochemist.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation described in this job guide is that of the person who treats illness by manipulating the spinal column to relieve nerve pressures.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB.

Chiropractors employ a system of treatment based on the belief that the nervous system largely determines the state of health and that any interference with this system impairs normal functions and lowers the body's resistance to disease. Chiropractors treat their patients primarily by specific adjustment of parts of the body, especially the spinal column.

Chiropractors also use such supplementary measures as diet, exercise, and rest, and water, light, and heat therapy. Because of the emphasis on the importance of the spine and its position, most chiropractors use X-ray extensively to aid in locating the source of patients' difficulties. Chiropractics as a therapy does not include the use of drugs or surgery.

WHERE ARE CHIROPRACTORS LOCATED IN UTAH?

The majority of Utah's Chiropractors engage in private practice in the populous five county area of Box Elder, Davis, Salt Lake, Utah and Weber. The Salt Lake Telephone directory has seventy-two chiropractor listings.

The Utah State Business Registration office reports an average of 150 continuing and new chiropractic licenses have been issued annually for the past several years. Some Chiropractors are employed in clinics specializing in "General Manipulative Practice" or "Full Spinal Adjustments".

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS OF THIS PROFESSION?

To qualify as a chiropractor in Utah one must pass the written examination given by the State Business Regulation and Registration Department as well as the Board interview to practice as a Chiropractor. After High School graduation you complete four years training at a school of chiropractics. Many of the schools suggest or require at least one year of preparatory college study before enrollment.

A Chiropractor studies such subjects as anatomy, physiology and biochemistry during the early part of his training, then the last two years are devoted to obtaining practical experience in the School Clinic. The majority of the Chiropractic schools emphasize manipulation and spinal adjustment. A few include Chiropractic physiotherapy curriculum.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Chiropractor should have the personal qualities for dealing with people of various backgrounds. Verbal, numerical and spatial ability, intelligence, form and clerical perception are among the desirable aptitudes for this profession.

The work does not call for unusual strength or endurance but it does require considerable dexterity, with the hands. A considerable financial investment is required if the chiropractic graduate desires to establish his own clinic or to purchase one already established.
HOW MUCH DO CHIROPRACTORS EARN IN UTAH PRACTICE?

Chiropractors, as are other professional people, are somewhat reluctant to discuss their financial income. From limited data available it would appear their average annual income in Utah ranges from about $9,000 - $13,000 depending on location and clientele. Inexperienced practitioners may earn less during the early period of establishing practice.

WHAT IS THE EMPLOYMENT OUTLOOK FOR CHIROPRACTIC PRACTITIONERS IN UTAH?

Success of the new practitioner will depend in large part on proper selection of a location for practice. Opportunities will continue to be best in those parts of the country where chiropractic is more acceptable as a method of treatment. Small towns or suburban areas, where the young practitioner can become known more quickly offer the best prospects for developing a practice.

The wide variation in community acceptance and in State laws is reflected in the concentration of chiropractors in certain areas. The ratio of chiropractors to population is highest in the Western States.

Employment opportunities are expected to be best for new entrants who are able to meet the highest State licensing requirements, including graduation from a 4-year course of 4,000 or more hours. In view of the trend in many states toward raising the educational requirements for chiropractic practice, thorough training will become more important.

Women are expected to continue to find good opportunities, since some women and children prefer to go to women chiropractors for treatment. In 1960, about 10 percent of the chiropractors in practice were women. All chiropractic schools accept women as students and the trend in their enrollment is moving upward.

A slow growth is forecast for this occupation during the next decade. It will probably be at a slower rate than the medical profession generally and less than the average for the major Health Service occupations. Retirement and turnover replacements and expansion in the occupation to take care of population growth will account for the job opportunities.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL INFORMATION OR CAREER GUIDANCE?

You can get information at any of Utah's twelve local public employment service offices or at your nearest Chiropractors Clinic. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
CLINICAL PSYCHOLOGIST

The occupation discussed in this job guide is that of the professional who specializes in the diagnosis, treatment and prevention of mental illness.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

The clinical psychologist interviews patients, gives subjective tests to evaluate and measure psychological and sociological characteristics and traits. Historical evidence is correlated with results of administered tests in formulating and projecting the resulting analysis. Information about a patient's characteristics, traits, capacity, and behavior patterns may be obtained from conversations with relatives and acquaintances, from surveys and observation.

The clinical psychologist prepares a diagnostic evaluation of the patient by analyzing test results in comparison with the patient's background, attitude, and interview summarizations. A treatment program is developed and administered to assist the patient achieve, as near as possible, a satisfactory adjustment, with other patients, with family and finally the community at large.

The clinical psychologist aids in the development of hospital staff, both at the professional and nonprofessional level, to provide the most desirable individual and group therapy treatments. Interns and practicum students of psychology are instructed, trained and supervised; seminars are conducted for nurses, attendants and other hospital personnel.

Clinical psychologists may perform the duties and responsibilities of any of the other branches or specialties of the psychology profession such as developmental, experimental, social research, comparative, physiological, industrial, educational and others. A psychologist may serve as a college instructor, personnel executive or as a hospital administrator.

WHERE DOES THE CLINICAL PSYCHOLOGIST WORK IN UTAH?

The majority of Utah's clinical psychologists practice their profession in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR PSYCHOLOGISTS?

Generally the minimum educational requirements for this profession is a masters degree with a major in psychology. Individuals with only a bachelors degree may secure employment situations in various fields of work but will find advancement and participation in more responsible areas of the specific field limited. In fact the Ph.D is a requirement for a number of the higher level positions in the Federal Government and elsewhere.

Utah and a number of other states require a psychologist to pass a state licensing examination before engaging in private practice. Utah's major colleges offer a course of study leading to a doctor of clinical psychology degree. A one year's internship or supervised clinical experience as well as several years of post graduate study are required of those desiring to become qualified clinical psychologists.
WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Clinical Psychologist should have such personal aptitudes as intelligence, verbal and numerical ability, an interest in the Science of human behavior as well as a desire to be of service to others. Clear speech and good hearing are essential in meeting other people.

A willingness to make decisions involving the lives and actions of emotionally disturbed people is a requirement of this profession. You should expect to continue to study to keep abreast of the changes taking place in this science all through the years of your activity.

HOW MUCH DO CLINICAL PSYCHOLOGISTS EARN IN UTAH?

The Psychologist with a bachelors degree and relatively little work experience expects to be employed at a starting wage in the $450 - $600 a month range. Those with a masters degree are usually offered a starting salary in the $600 - $700 a month range. Psychologists with a Ph.D. and those with experience earn an average of $8,000 - $10,000 per year and up.

WHAT IS THE EMPLOYMENT OUTLOOK FOR CLINICAL PSYCHOLOGISTS IN UTAH?

The forecast for the growth of the Psychologists occupation is a favorable one. The rate of population growth, the longer life expectancy, and the increased concern and understanding of the problems of mental health as well as the growing complexities of Twentieth Century life are all factors prompting a greater demand for these services.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The person who assists a dentist by keeping his office records, answering the telephone, making appointments and helping with the comfort of patients is the subject of this job guide.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Dental Assistant acts as an office receptionist by answering the telephone and greeting visitors and determining the purpose of the call. Appointments for dental examination, or treatment are made as near as possible to the mutual convenience of the patient and dentist. Incoming and outgoing mail is handled as required.

The Dental Assistant acts as a cashier and sometimes bookkeeper by accepting payment for services rendered, issuing receipts and posting charges to the respective accounts. Notices of past due accounts are prepared and mailed as appropriate. Receipts are periodically deposited in the bank and checks for accounts payable items are prepared for the dentist's signature.

The Dental Assistant seats the patient and adjusts chair, draping patient with sterile covering, lays out dental equipment and supplies likely to be needed by the dentist as well as records of previous dental work, X-rays or other information or materials pertinent to the case. Hands instruments to dentist during examination or treatment as instructed.

The Dental Assistant operates suction equipment to keep patients mouth free of secretion during treatment or extraction, swabs or sponges patients mouth and lips at intervals and administers mouth wash, as required. Pulse, respiration, facial coloration, and pupillary reflex of patients under anesthetic may be inspected during dental surgery. Records of treatments are maintained.

The Dental Assistant may assist in taking and developing X-rays, cleaning calcareous deposits and stains from teeth, mixing amalgam and other filling materials, sterilizing equipment, linen, and instruments. The office premises are kept in a clean and orderly condition.

WHERE ARE DENTAL ASSISTANTS EMPLOYED IN UTAH?

The majority of Utah's Dental Assistants are employed in the populous five county area of the Wasatch Front. They work in private dental offices and clinics of about 1,000 dentists in Utah.

WHAT ARE THE TRAINING AND EDUCATION REQUIREMENTS OF THIS JOB?

High school graduation, plus completion of a course covering dental laboratory and dental operative assisting is preferred. Course work includes general chemistry, anatomy, and bacteriology; oral hygiene and instrumentation; prosthetic dentistry; general and oral pathology; and sterilization. Some experience is preferable but not always essential. The worker usually receives in-service training in dental methods and procedures from most employers upon commencing employment. Familiarity with names and uses of dental instruments and equipment, methods of sterilization, techniques of preparing filling and other materials, and clinic and X-ray procedures are desirable.
WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

Sterilization of instruments and linens, cleanliness of clinic and office, and accuracy of records are the responsibility of the assistant who relieves the dentist of routine duties. The Dental Assistant alternates between the desk and the dental chair most of the working day. She uses finger dexterity and eye-hand coordination to handle and manipulate dental instruments and equipment, visual acuity and color discrimination are also important in this work.

Ability to work with patients, many of whom are suffering intense pain is needed. Cooperation and sympathy while working with patients, attention to details for short periods of time, some initiative involved in anticipating dentist's requirements, and some judgment involved in laying out instruments and supplies and scheduling appointments is required of the Dental Assistant who works under close supervision, performing tasks that are well standardized.

HOW MUCH DO DENTAL ASSISTANTS EARN IN UTAH?

The wages reported by Utah dental assistants usually range from about $250 - $300 a month. The lower amount is reported by the inexperienced employees being trained on the job while the higher figure represents the typical salary scale of the experienced and fully qualified dental assistant.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION?

The Dentist’s "right hand girl" is an important member of the health service team. This occupation provides an interesting and satisfying career to women of different age levels. In many respects the duties of this position are similar to those of the physician's assistant. The opportunity for advancement is limited largely to a higher salary as the dental assistant is often the dentist's only employee.

The opportunities for employment as a dental assistant are forecast as favorable for at least several years to come. In addition to replacement of the women who quit to marry or assume household duties it is expected there will be a growth rate of three or four percent a year in this occupation.

In 1965 there were about 200 dental assistants employed in Utah. The forecast for 1975 is for a figure in excess of 250. This should be considered a very favorable occupation for those interested in the type of work involved.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest dental clinic or dentist's office. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
DENTAL-LABORATORY TECHNICIAN

Dental technicians construct and repair dental prosthetic appliances such as dentures, fixed and removable bridgework, inlays, jackets, crowns, and orthodontic devices according to prescription.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Dental technicians construct dentures according to dentists' written prescriptions and wax impressions of the patient's jaws and remaining teeth. They form models of the patient's jaws and teeth of calcium sulphate or similar materials. They articulate the jaw models to correspond with the "bite" of the patient.

Dental technicians make models of the dentures of wax and plaster and form the dentures of layers of rubber or plastic, in which they embed artificial teeth that correspond as closely as possible to the patient's remaining teeth. They cure the rubber or plastic dentures by vulcanizing them or boiling them in water. They trim excess material from dentures and polish them to give them a smooth finish.

Dental technicians also make removable bridges, using gold, silver, steel, and chrome; and they make porcelain crowns and inlays. They cast bridges and abutments from impressions in wax or patients' gums and adjoining teeth. They use casting machines that cast metal by forcing it into molds by centrifugal action. They cast crowns and inlays by the same procedure.

Dental technicians also repair broken dentures, bridges, and inlays. They cut away broken parts with a knife and grind edges to a smooth bevel. They place the dentures on the articulator and construct the missing portions in the same manner as making new dentures. They solder bridges with gold wire using a small blow torch or bunsen burner.

WHERE ARE DENTAL TECHNICIANS EMPLOYED IN UTAH?

The majority of Utah's Dental Technicians work in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. Some have their own small shops while others are employed by larger dental service organizations.

WHAT ARE THE TRAINING REQUIREMENTS AND ADVANCEMENT OPPORTUNITIES?

Although there are no basic requirements of education, a high school diploma is often required for entry into the craft. Training consists of practical work combined with related reading, ideally covering four years of apprenticeship which may vary depending upon the individual's learning capacity and credit for previous training. Presently there are no schools in Utah for organized training. The nearest is at Portland, Oregon. Similar schools are located in California and several Eastern States.

This occupation is essentially a terminal one. Technicians can specialize in a certain type of work, such as porcelain, set up, gold or chrome, and command top wages. Logically, laboratory ownership represents the next step forward. Other possible avenues of advancement are research or sales jobs with dental supply manufacturers of wholesalers.
WHAT SPECIAL PERSONAL CHARACTERISTICS OR PHYSICAL ACTIVITIES ARE REQUIRED?

The dental-laboratory technician should possess such aptitudes as form perception, manual dexterity, motor coordination and spatial ability. Interest in such high school subjects as mechanical drawing, shop work, art and the sciences should have been displayed by the dental technician trainee.

The work activity of a dental technician involves intermittent standing and sitting at a work bench. Considerable finger dexterity is required since the work involves handling small and delicate objects. Visual acuity with color perception is imperative in determining shape and color. An esthetic sensitivity is valuable for the exacting phase of custom fabrication.

WHAT IS THE WORKING ENVIRONMENT OF THE OCCUPATION?

Laboratories, although sometimes small, are usually well lighted and ventilated. Hazards include possible injury from electric ovens, hot water, sharp tools, and grinding wheels, although normal caution and alertness should prevent accident. Technicians may work alone with minimum supervision, or may work with or around others.

HOW MUCH DO DENTAL LABORATORY TECHNICIANS EARN IN UTAH?

There is no standard wage scale for this occupation such as might be found in the construction and building trades industry. Entry workers are usually offered in the vicinity of $60 to $80 a week and the more fully qualified technicians earn in the neighborhood of $100 a week. Self employed technicians are reluctant to publicize their income, which of course will vary considerably, depending upon volume of business at their location but it is generally believed, based on limited data to be in the $5,000 - $10,000 annual range.

WHAT ARE THE EMPLOYMENT OPPORTUNITIES FOR DENTAL TECHNICIANS?

It is expected that this numerically small but important occupation will experience modest growth during the next several decades. Increased population with a greater life expectancy and a growing desire for complete dental correction will cause demand for these services to continue at or above present levels.

Employment opportunities may occur as presently established dental technicians expand their shop facilities to accommodate increased business, or as new health service facilities are located in communities previously dependent upon some other medical health service center. The outlook for this occupation is considered favorable, however even a high growth rate will result in relatively few new job openings in Utah.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

Any of Utah's public employment offices, whose locations are shown on this job guide or in your local telephone directory, will welcome your inquiry. Your school's vocational counselor or your local library are other sources of information. The Occupational Outlook Handbook published by the U. S. Department of Labor, Washington 25, D. C., is also an excellent reference.
The occupation discussed in this job guide is that of the professional practitioner who cares for the teeth and related areas.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The dentist examines a patient's teeth and jaws to locate cavities, crooked teeth and diseased tissue or bone. The cavities are filled, teeth straightened and cleaned as well as treatment applied to diseased areas. If considerable dental work is to be done appointments are scheduled in order to avoid tiring the patient or creating tensions from long periods of dentistry.

The dentist extracts teeth that have deteriorated beyond repair, and replaces them with artificial teeth. He performs the necessary surgical operation to prepare the jaw for bridgework or a plate. If a complete false plate is to be worn he takes an imprint of the jaw and other measurements in order to design the artificial teeth to look as near natural as possible.

Some dentists may specialize in a limited portion of the profession such as acting as an instructor in a dental college; as an orthodontist straightening teeth; as an oral surgeon operating on mouth and jaws, as a periodontologist treating the tissues supporting the teeth; as a prosthodontist making artificial dentures; as a pedodontist treating the teeth of young children; as a public health officer informing people of the desirability of proper dental care; as an oral pathologist and possibly other specializations.

WHERE ARE DENTISTS EMPLOYED IN UTAH?

About 80% of Utah dentists are found in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. About nine out of every ten dentists have their own dental office, the remaining being employed by a clinic, institution or government agency. In the rural areas there may be as many as 3000 people per dentist while in the Salt Lake, Ogden, Provo area the ratio may be about 1500 people to one dentist.

WHAT SPECIAL PERSONAL CHARACTERISTICS ARE REQUIRED FOR THIS PROFESSION?

To become a successful dentist you must be adept with your hands, and fingers, have excellent judgment of space as well as ability to comprehend technical detail. You must have a high level of intelligence, good visual memory, delicacy of touch, and scientific ability. A liking for people and a good business sense are helpful to you in achieving satisfaction in private practice. You will need good health, plenty of energy and ability to stand for long hours.

You will, as a dentist, above all else, need the right personality to reassure apprehensive people, for unless people respect and listen to you, you will not do well in private practice. Your financial resources are another important consideration in choosing a dental career. You must be able to provide for six years of tuition and living costs and after graduation the expense of equipping an office and building up a clientele before you start receiving an income.

WHAT ARE THE EDUCATIONAL & TRAINING REQUIREMENTS FOR DENTISTS IN UTAH

You must obtain a license to practice dentistry in Utah from the State Department of Registration at the State Capitol Building in Salt Lake City, Utah. The state
law requires applicants for a license to be high school graduates, of good moral character, and a graduate of an approved dental college. You must also pass an examination consisting of a practical demonstration, as well as written and oral tests in the theory and practice of dentistry. A training course in dentistry requires six years of schooling, two years of predental courses and four years in dental school. Predental education must include at least a half year course in organic chemistry and a full year course in English, biology, physics and inorganic chemistry. The four years' training in dental school includes two years of classroom instruction in the basic sciences and two years of practical experience in a dental clinic treating patients.

A two year predental course generally accepted by the dental colleges in other states is offered at: Brigham Young University, Provo; Carbon College, Price; Dixie College, St. George; University of Utah, Salt Lake City; Utah State University, Logan; Weber College, Ogden; and Westminster College, Salt Lake City. There are no approved colleges of dentistry operating in Utah at the present time. You should contact the dental college of your choice regarding specific transferrable credits prior to predental college enrollment.

HOW MUCH DO DENTISTS EARN WHILE PRACTICING IN UTAH?

Dentists, as do other professional people who engage in private practice, are reluctant to publicize their exact incomes. You may expect an income in the $8,000 to $12,000 a year range during your first five or so years after graduating from dental college and while you are first establishing your practice. The typical dentist in private practice in Utah at present is believed to have an income from his dental practice averaging about $15,000 or $16,000 a year. Possibly ten percent of the Utah dentists earn in excess of $20,000 a year.

WHAT IS THE EMPLOYMENT OUTLOOK FOR PROFESSIONAL DENTISTS IN UTAH?

The demand for dental services is expected to increase faster than the supply during the next decade. This situation will come about not only because of an increase in Utah's population but also because there is a growing awareness of the importance of obtaining regular dental care. The growing proportion of our population in the older age brackets also requires additional and more frequent service. Over 500 dentists were practicing in this state last year. Present dental colleges in the United States do not have the capacity to train dentists fast enough to meet the demand. There is consequently keen competition for admittance to dental schools with only those scoring very high on aptitude tests and having the best of scholastic standing being given favorable consideration for enrollment. Their number should increase in Utah to very near 700 by 1975.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment offices whose locations are shown on the face of this Job Guide. The "Occupational Outlook Handbook" published by the Bureau of Labor Statistics of the U. S. Department of Labor contains more detailed information on a National scope which will be of interest to anyone considering dentistry as a life career. Your school counselor or public library are also sources of information about this profession. Another organization that would be glad to receive an inquiry is The American Dental Association, 222 East Superior Street, Chicago 11, Illinois.
DIETICIAN

The occupation of people who plan the food service in a nutritionally adequate, satisfying, and attractive manner is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

In business, industry, hospitals, preventive health, and in some school health programs, the dietitian directs and supervises personnel in dietary units concerned with the planning, preparation, and serving of basic and supplementary diets. Maintaining food cost controls, providing instruction in the principles of nutrition, preparing educational materials on nutritional value of foods and methods of food preparation are some of the duties assigned to this worker.

The Dietician purchases food, equipment and supplies, and inspects for sanitary conditions. Depending on the employer and the magnitude of the work, one or more of the above responsibilities may be performed by a number of dietitians under the general supervision of a chief dietitian or an administrative supervisor.

The therapeutic dietician in a hospital or institution supervises the preparation and serving of regular and special diets to patients, or inmates, in accordance with the prescription of a physician or the director of the dietetic department. The dietitian determines the basic diet conforming with dietary essentials and establishes size of portions to be served.

The Dietician considers the availability and seasonality of food, food preferences, and principles of economy. Adjustments are made in quantity and content of the meal to provide for differences in nutritional requirements of individuals.

Dietitians instruct the chef and other kitchen employees regarding the type and quantity of food required, and also make inspections to insure that food is being prepared by the correct procedure, that food is stored properly and that equipment, storage areas, and working areas meet the sanitary standards.

Administrative dietitians in a hospital, institution or business makes the final selection of food service personnel, supervising the orientation, on-the-job training, and work performance of employees. Other duties include responsibility for the establishment and maintenance of records, compiling reports concerning the technical and administrative operations such as the number of meals served.

The Dietician makes analyses of diets, food costs, supplies issued, inventory, maintenance service and costs, personnel attendance records, and allied reports. The foregoing duties, in a large organization, may be divided among a number of dietitians.

WHERE ARE DIETICIANS EMPLOYED IN UTAH?

The majority of Utah’s Dieticians are employed in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. They work in hospitals, schools and other institutions as well as in research and industrial food and nutrition programs.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS?

The minimum educational requirements for the dietician’s profession is a college degree in Home Economics with a major in Dietetics Institutional management, Foods and
Nutrition or closely allied subjects. The American Dietetic Association requires a one year apprenticeship at an approved institution under the supervision of a registered dietician before the trainee is considered to have reached professional stature.

Graduate study leading to an MS or PhD degree and an accumulation of experience will qualify you to advance to higher level positions in the Government Service, Hospital Administration, Public Health, School Lunch Program or in Nutrition and Food Research. Certain Dieticians may wish to qualify for teaching positions or as college instructors.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE NEEDED?

The dietician should have excelled in such high school subjects as biology, chemistry, mathematics, physiology and home economics. Intelligence, verbal, numerical and spatial ability are important aptitudes. An interest in the welfare of people, an ability to plan and direct the activities of a food service program as well as the ability to perform a variety of duties often characterized by frequent change should be apparent.

Dieticians should be prepared to stand and walk most of their shift. They should have manual dexterity to handle and manipulate cooking utensils and equipment in demonstrating and in assisting in food preparation and serving. A good sense of smell and taste are useful in determining the palatability of food. Normal vision with color perception, hearing and speaking ability are needed.

HOW MUCH DO DIETICIANS EARN IN UTAH?

Relatively inexperienced dieticians upon completion of internship may expect to start their careers in Utah at a salary in the $300 - $400 a month range. Experienced Dieticians usually earn in the $400 - $500 per month salary range. Department supervisors and Chief Dieticians in the larger institutions may receive higher pay.

WHAT IS THE EMPLOYMENT OUTLOOK FOR DIETICIANS?

Over eighty percent of Utah's Dieticians are employed by a combination of Hospitals and Schools or related institutions. The normal growth rate of our population could account for a favorable increase in this occupation. In addition the recent passage of Medicare legislation and the growing concern of people of all ages, in medical and health care will cause additional demand for the skills and knowledge possessed by this occupation. Dieticians will be called on in increasing numbers for a variety of nutritional meal plans for young and old, for injured and invalid.

WHERE MAY YOU OBTAIN ADDITIONAL OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
HEALTH EDUCATION TEACHER

This job guide is concerned with the professional occupation of the secondary school teacher who specializes in health education and related areas of physical and recreational education.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

The Health Education Teacher instructs classes of students in such subjects as health, physical education or recreation. The assignment may vary depending on the size of the student load, budgetary allotment, available facilities, and the educational program and policy of the school board.

The Health Education Teacher assigns lessons, hears recitations, delivers lectures, shows films or slides, grades papers, prepares reports and maintains discipline in the classroom. School and community meetings are attended, parents are visited and special learning problems of their children are discussed with suggestions made for corrective action. May be responsible for a home room and some school activity. May teach safety and Driver Education classes.

The Health Education Teacher is responsible for developing the students' interest and understanding of both personal and public health. Assignments may include personal health care, sex education, first aid, demonstrations, discussion of the effects of alcohol, tobacco and narcotics, proper foods and nutrition, a discussion of epidemics, spread of disease and value of inoculations and serums.

The Health Education Teacher may also have an assignment, especially in the smaller schools in the Physical Education Program as well as acting as coach of baseball, basketball, football, track, and field, etc. Dance and swimming classes may be taught as part of the schools' recreational program, also skiing, golfing, tennis, bowling and other individual participant sports.

The Health Education Teacher may be assigned to teach and assist handicapped children to live with or overcome their disabilities although this usually involves additional training and study as well as further specialization. The most common of these areas are blind and visually handicapped, deaf and hard of hearing, speech correction and lip reading, the orthopedically handicapped and the mentally retarded.

WHERE DO HEALTH EDUCATION TEACHERS WORK IN UTAH?

Health Education Teachers may be employed in any of Utah's 40 school districts. However the majority will be found in the more populous five county area of Box Elder, Davis, Salt Lake, Utah, Weber. The larger school districts as found in the Salt Lake, Ogden and Provo communities are more likely to employ the services of these specialists.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS OF HEALTH EDUCATION TEACHERS?

The Health Education Teacher must complete a four year college program in education and obtain a degree as well as a Utah Teachers Certificate. The foundation science courses for Health Education and related minors include Biology, Chemistry, Physics, Psychology, Sociology, human anatomy and human physiology.

Health Education Major courses also include such subjects as nursing, food and nutrition microbiology, anthropology, and the various education classes. Related or
composite amjors and minors include classes in dance, physical education, recreation education, teaching techniques as well as participation in intercollegiate or intramural athletics or sports and various activity courses.

Candidates for teaching positions in Utah who have taught in other states may in effect transfer their credentials by showing they have completed an equivalent program comparable to Utah's prescribed standards. If it is impossible to obtain a certified teacher an uncertified one may be hired on a temporary basis pending completion of the requirements for certification. This is becoming a rare occurrence.

WHAT SPECIAL PERSONAL CHARACTERISTICS & PHYSICAL ACTIVITIES ARE NEEDED?

The Health Education Teacher should first of all be interested in young people and in helping them acquire an adequate knowledge of health, exercise, nutrition, and psychological relationships. An ability to plan and control students' activities as well as to evaluate pupils' knowledge of given subjects and to judge their intellectual growth is also needed.

The Health Education Teacher should have verbal ability, clerical perception, intelligence, and numerical aptitude. This work involves frequent reading and handling, clear speech, good hearing and vision, as well as considerable standing during the work period. Some teachers may also find it expedient to participate in both team and individual athletics and sports events or games.

HOW MUCH DO HEALTH EDUCATION TEACHERS EARN IN UTAH?

The usual starting salary for relatively inexperienced Health Education Teachers in Utah is in the $4,000 to $4,500 a year range. Teachers with a masters degree receive more per year than those with a bachelors degree. The larger and more prosperous districts pay as high as $5,500 to $7,000 for experienced teachers with 15 or more years tenure. Promotion may be to supervisor or Principal for the qualified person.

WHAT IS THE EMPLOYMENT OUTLOOK FOR HEALTH EDUCATION TEACHERS IN UTAH?

Students capable of meeting the high academic and professional standards of this occupation will find many challenging and profitable employment situations available to them in the years to come. There is an increased and expanding interest in both private and public health matters. Legislation such as Medicare and Youth opportunity places an emphasis on physical fitness, proper diet, special vocational training and therapeutics. All indicators point to favorable employment opportunities for this profession.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
HOSPITAL ADMINISTRATOR

This job guide discusses the occupation of the executive who coordinates the professional and other hospital staff members into a team to provide medical-health services for the sick and injured of the community.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The hospital administrator reviews and evaluates policies, procedures, and directs installation of improved work methods and procedures to insure achievement of objectives. He interprets and transmits policies of governing board to medical staff and personnel, and insures compliance with policies. He prepares a yearly budget for control of expenditures.

The hospital administrator prepares periodic reports to governing board and medical staff. He meets with department heads to coordinate their activities and formulate programs. He acts as liaison between medical staff and governing body in matters of professional care and treatment of patients. He determines that care of patients is of highest professional level, and meets with standards prescribed by accrediting agencies.

The hospital administrator provides for an administrative management organization, including budget and finance, personnel, purchase and supply, building and grounds maintenance, and housekeeping, and integrates the services with clinical phases of patient care. He meets with department heads to solve administrative problems, and may supervise, directly, one or more hospital department.

The hospital administrator determines organizational lines of authority and fixes areas of responsibility. He selects service department heads and, in cooperation with governing board, makes contractual agreements for Physicians' services. He recommends rules governing conduct of employees while on duty, working hours, and salary rates. Suitable quarters are provided for personnel living in hospital.

The hospital administrator performs public relations for the hospital to develop an awareness and public understanding of its functions. He may solicit funds and volunteer services by speaking to community groups or appearing on TV or radio programs. He superintends the operation and maintenance of building and grounds, authorizes purchases and performs related duties.

WHERE DO HOSPITAL ADMINISTRATORS WORK IN UTAH?

The dozen or so hospitals in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber provide the majority of the state's Hospital Administrators with their places of employment. Smaller hospitals are often directed or managed on a part time basis by a public official, a doctor, a nurse or business manager.

WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB?

There are no uniform educational standards for Administrators currently employed. However, one of the following requirements should be met: (A) Graduation from an accredited college, University, Medical School, or School of Nursing; and/or (B) Completion of a post graduate course in hospital administration; and/or (C) Five to ten years of hospital supervisory experience, at least 1 year of which is spent as an Assistant Administrator. A 2-year course of instruction in hospital
administration, leading to the degree of Master of Science or Master of Hospital Administration is offered by a number of universities. Course work includes business management, cost accounting, economics, finance, psychology, and personnel and public administration.

Hospital administrators must have thorough knowledge of fundamentals of hospital organization and administration, standards and regulations of hospitals, and laws applicable to hospital operations. Must have working knowledge of personnel or business administration; merchandising; public relations; mechanics; dietetics; medicine, psychiatry, or nursing; and functions of all departments. Is able to apply principles of personnel administration to selection, placement, and transfer of employees.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

Hospital administrators have responsibility for functioning and coordination of all departments, program planning, organization of departments, control of activities, interpreting and administering policies of governing body or agency, and insuring that patients receive highest level of professional medical care. Providing educational research facilities and promoting facilities to meet public needs.

Willingness to accept responsibility for activities of hospital where inefficiency may result in serious consequences to patients, ability to meet and deal with a variety of employees, disturbed patients and relatives, ability to address large groups, memory for details, and periods of sustained concentration frequently required. Qualities of leadership are essential, considerable initiative and judgment are involved in formulating policies of governing board, promoting favorable public relations, planning and analyzing hospital activities, and selecting personnel.

HOW MUCH DO HOSPITAL ADMINISTRATORS EARN IN UTAH?

Hospital Administrators' salaries range from a low of $8,000 or $10,000 a year for small hospital administrators or relatively inexperienced assistants to a high in the neighborhood of $15,000 to $20,000 a year for the administration of a large hospital with hundreds of beds and many complex services.

WHAT IS THE EMPLOYMENT OUTLOOK FOR HOSPITAL ADMINISTRATORS?

This numerically small but important policy making executives' occupation is expected to share with other medical health occupations in general growth and expansion trends. New hospital buildings are being constructed and old ones remodeled and expanded to provide facilities for the care of an increasing number of people desiring medical health care. The passage of Medicare legislation and other developments assure a favorable growth for this and related occupations.

Perhaps the most immediate job opportunities will be for assistant administrator or as some of them are called, Administrative Assistants. These trainees gain experience while working under the surveillance of the administrator often being rotated in a planned program from one hospital division or service to another. Advancement occurs when the administrator retires or through transfer when a vacancy occurs in a small hospital with no available trainee.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL INFORMATION AND CAREER GUIDANCE?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U.S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The hospital employee responsible for the housekeeping program and the maintenance of cleanliness is the subject of this job guide.

**HOUSEKEEPER (EXECUTIVE)**

**NEW DOT CODE 321.138**

**OLD DOT CODE 2-25.23**

The hospital employee responsible for the housekeeping program and the maintenance of cleanliness is the subject of this job guide.

**NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB**

**The Hospital Executive Housekeeper directs and administers housekeeping programs:** Formulates plans for and directs in-service training program to promote efficiency of employees and services rendered by department. Evaluates effectiveness of program to make revisions as necessary and to incorporate newer methods and techniques. Demonstrates use of new methods and equipment and requisitions experimental quantities. Develops and maintains effective working relationships with professional, administrative, and maintenance personnel.

The Executive Housekeeper advises administrative office on standards and procedures useful in development of plans and policies. Recommends changes of layout and location of equipment to facilitate cleaning various areas of hospital. Suggests reallocation of space to facilitate movement of traffic. Interviews and makes final selection of applicants referred by personnel section. Recommends dismissal of unsatisfactory employees and initiates disciplinary action as necessary.

The Executive Housekeeper plans and directs work schedule for staff, considering such factors as traffic, visiting hours, and work to be completed. Plans program for waste collection, vermin control, and other related activities. Periodically inspects completed work for quality. May accompany medical director on inspection tours.

The Executive Housekeeper determines that collection and distribution of linen meet needs of hospital. May determine work which cannot be performed by hospital maintenance staff, and participate in conferences and contractual agreements with outside agencies who perform these jobs. Plans and selects furnishings for various hospital wards and rooms. Writes instruction sheets and training manuals governing housekeeping procedures.

**WHERE ARE HOUSEKEEPERS EMPLOYED IN UTAH?**

The majority of housekeepers is employed in the larger hospitals of the state.

**WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB?**

Some college education, including courses in housekeeping, general science, chemistry and textiles, is considered desirable. Two to three years of supervisory experience in the housekeeping department is required by most hospital administrators. Must be familiar with organization of hospital, functions of various departments, various types and composition of floor coverings, cleaning materials, draperies, shades, and curtains, cleaning and general housekeeping methods and equipment. Is able to apply principles of personnel administration to
selection, placement, and supervision of employees.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

Responsibility for: Cleanliness, sanitation, and orderliness of hospital, and appearance and courtesy of housekeeping employees, which are important to mental attitude of patients. Control and disposition of refuse. Use of warning signs in areas where cleaning or waxing is being done. Determining that linen supply meets needs of hospital. Selection of new employees. Cooperative relationships with other departments.

Physical Demands: Stands and walks intermittently throughout working day. Carries relatively light equipment. Handles and manipulates office materials and cleaning equipment when demonstrating their use. In addition may also supervise maids, porters, linen and clothes room workers.

Special Demands: Cooperation with other department heads, and fairness in dealing with subordinates. Attention to many details. Alertness to detect evidence of uncleanliness, poor laundering and waste of materials. Considerable initiative and judgment involved in selecting new equipment and supplies, developing cleaning standards and procedures, selecting new employees, and developing training programs.

In some smaller or medium-sized hospitals, the Executive Housekeeper may also be responsible for the management of the hospital laundry and supervision of the laundry workers as they wash, dry and press the linens and other materials.

HOW MUCH DO EXECUTIVE HOUSEKEEPERS EARN IN UTAH?

The usual salary range for the Executive Housekeeper is from $300 to $500. Entry workers in the housekeeping departments of Utah hospitals start at between $1.00 and $1.25 per hour and may advance to assistant or executive positions.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION?

Employment opportunities in the hospital Housekeeping department are frequently available. There is a continuous demand for maintenance of high standards of cleanliness to avoid spreading infection. This takes a full complement of workers every day of the week and every week of the year. Even temporary vacancies on the housekeeping staff must be promptly filled.

The Employment Outlook is favorable for this member of the Health Service team in at least a rate equal to the average of the Health Service occupations. Replacement of personal vacancies due to turnover and terminations plus the needs of expanding hospital and medical-health facilities assure many housekeeping job vacancies in Utah hospitals during the next decade; Some of these will occur at your nearby hospital.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
LICENSED PRACTICAL NURSE

The practical nurse occupation described in this job guide provides bedside nursing care as authorized by license of the Utah State Board of Nurse Registration and Nursing Education.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

This guide covers the practical nurse licensed by the State Board of Nurse Registration and Nursing Education. She is primarily concerned with providing care and treatment to patients, under the supervision of physicians or registered professional nurses. She might be employed in a hospital, industrial plant, institution, doctor's office, public health agency, or private home.

Assignments in a hospital may be in the obstetrics, nursery, surgery, psychiatric, central supply, surgical, orthopedic, or pediatrics departments.

Hospital duties of a licensed practical nurse include observing and recording symptoms and reactions of patients; giving prescribed treatments, medications; changing bed linen; bathing and feeding patients; taking and recording the patients' pulses, temperature, respiration, and blood pressure; giving enemas and catheterizing patients; giving instructions and administering selected treatments to patients; and, possibly, assisting in a diet kitchen or housekeeping department. She may be required to clean equipment or keep supplies in order.

The practical nurse in a doctor's office assists the physician or professional nurse in the examination of patients, gives simple medications or treatments, carries out routine laboratory tests, and some clerical duties. In a private home she carries out the instructions of the attending physician or public health nurse, and must exercise considerable training and skill. Besides caring for the patient, a licensed practical nurse in the home may be responsible for certain housekeeping duties which are necessary to the patient's well being.

WHERE ARE LICENSED PRACTICAL NURSES EMPLOYED IN UTAH?

Over one half of Utah's licensed practical nurses report employment in a hospital or doctor's office, over one third work in private homes. They are in constant contact with fellow workers, doctors, and the public. If the nurse is employed in a home, the surroundings would be somewhat different than those in a hospital or doctor's office. About 75% of Utah's LPN's find employment in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR THIS OCCUPATION?

Utah Law 58-14-8 states: "An applicant for a license to practice as a licensed practical nurse shall submit written evidence, verified by oath, that the applicant (1) is eighteen years of age or more; (2) is a citizen of the United States or has legally declared intention of becoming a citizen; (3) is of good moral character; (4) is in good physical and mental health; (5) has completed at least two years of high school or its equivalent and such other preliminary qualifications and requirements as the committee may prescribe; (6) has successfully completed an accredited course for the training of licensed practical nurses." (An accredited course consists of a one-year combination of instruction and practical experience.)
The Salt Lake Trade Technical Institute, Weber and Carbon Colleges and the Utah Trade Technical Institute at Provo offer an approved course in practical nursing. A typical fully-accredited 50-week course of 1817 hours includes practical work experience and class study in hospital practices, care of the medical and surgical patient, care of mothers and newborn, care of children, care of the aged, diet therapy, central supply service, isolation technique, care of orthopedic patients, care of psychiatric patients. Related subjects studied include nursing principles and skills, vocational relations, personal and community health, body structure and functions, conditions of illness, diversional and rehabilitative activities, growth and development of the child, nutrition and diet therapy, pharmacology, interpersonal relations, etc.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED FOR THIS WORK?

Persons entering this occupation should be able to perform moderate to arduous work, have a pleasant personality, physical stamina, and great patience. This job requires both mental and physical alertness in performing the various activity assignments. This job requires standing, walking, and sometimes running. Finger and hand dexterity is necessary in administering to patients' needs, cleaning instruments and equipment. The ability to see, talk, and hear without difficulty is essential. Strength of back and arms is required in lifting, turning, or caring for personal needs of patients. Entrants into this occupation must pass a physical examination and be free of communicable diseases.

HOW MUCH DO LICENSED PRACTICAL NURSES EARN IN UTAH?

The practical nurse employed in a hospital or doctor's office is usually paid on a monthly basis, based on a 40 hour week. Normally, extra compensation is paid for evening and night work. Also, extra pay is given, in some cases, for length of service. The nurse employed in a private home is usually paid on a daily basis. Normally this wage averages approximately the same as a hospital wage. Fringe benefits are usually limited to annual vacation with pay, and, occasionally, when in a hospital, meals and uniforms are furnished. Earnings of practical nurses range from $225 to $300 per month depending on responsibilities.

WHAT IS THE EMPLOYMENT OUTLOOK FOR LPN'S IN UTAH?

Employment opportunities in Utah are excellent. This optimistic outlook is based on various factors: more use is being made of the practical nurse in supplementing the duties of the registered nurse; there is an expanding health service; the rising population has helped increase the demand; and, hospital and health insurance programs create the need for more nurses. The demand for licensed practical nurses will continue for several years and anyone entering this field of work should find employment with relative ease. However, this may vary depending on the specific area in which the person wishes employment and it would be advisable to contact the local employment office or hospital for more accurate idea of localized employment prospects. Their number is expected to increase from about 1200 at present to about 1600 by 1975.

WHERE CAN YOU GO FOR ADDITIONAL OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. The Utah Practical Nurses Association at 158 East 2nd South, Salt Lake City, Utah, will also supply answers to your questions about this occupation. Your school counselor or public library are other sources of information.
MEDICAL LABORATORY ASSISTANT

The occupation described in this job guide is mainly concerned with assisting the medical technologist in the hospital laboratory conduct various tests on body fluids and tissues.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The medical laboratory assistant uses the microscope to assist in the examination of cultured samples of body fluids, tissues and other substances, working under the immediate supervision of a medical technologist, physician or scientist. The laboratory assistant attempts to determine the presence of bacteria, fungi or other organisms as well as chemical content of the sample.

The laboratory assistant, as directed, may assist in making a laboratory test of blood, including count and smears, of animal parasites and inoculations may type blood for transfusions, may help in the preparation of vaccines, may assist in taking an electrocardiogram and related tasks.

The laboratory assistant cleans and sterilizes glassware and laboratory equipment after it has been used by professional workers. Steam, soap and water as well as other chemical reagents are used to accomplish asepsis. Equipment, supplies and materials are kept in an orderly fashion and the supervisor notified of depleted inventories or inoperative equipment.

The laboratory assistant may care for test animals in the medical laboratory, clean cages, feed and water animals, label their cages in conformance with experimental project data. Simple apparatus may be repaired, specimens and samples may be gathered and a record made of those kept in the laboratory. Contents of refrigerator are kept in order and other tasks performed as required.

WHERE DO MEDICAL LABORATORY ASSISTANTS WORK IN UTAH?

The majority of Utah's medical laboratory assistants are employed in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. They work in the laboratories of the larger hospitals and medical clinics.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR LABORATORY ASSISTANTS?

The medical laboratory assistant should be a high school graduate with some study in chemistry and bacteriology. Usually the new employee in the hospital laboratory performs the more routine tasks to become acquainted with the work and surroundings. As competency is gained from experience in handling the equipment and laboratory experiments increased responsibility is expected. The on-the-job training involves some study of the human anatomy, physiology, microbiology as well as the principles and techniques of the modern medical laboratory.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

Responsibility for: Sterile condition of glassware and equipment, and care in handling to avoid breakage. Accuracy in preparation of standard solutions. Care and safety of laboratory animals.
Physical Demands: Walks and stands most of working day. Reaches for, lifts, and carries relatively light equipment and apparatus. Finger dexterity and eye-hand coordination to handle and manipulate laboratory apparatus and equipment.

Special Demands: Ability to perform routine, repetitive tasks on a continuous basis. Some initiative and judgment involved in maintaining area in clean and orderly condition, preparing standard solutions and culture media, and maintaining even flow of work. Works under close supervision, following well standardized procedures and detailed instructions.

HOW MUCH DO MEDICAL LABORATORY ASSISTANTS EARN IN UTAH?

Students in an MDTA course for medical laboratory assistants in Weber County report they expect to earn between $1.60 and $2.00 an hour upon the completion of the course. Employer orders received at local department of employment security offices in Utah during the middle of the 1960 decade specified wages ranging from about $275 to $350 a month. There should be no confusion in job terminology and responsibility - the position discussed here is that of an assistant - the registered medical technologist with a college degree and professional accreditation is another occupation and the subject of a separate job guide.

WHAT IS THE WORKING ENVIRONMENT OF THE MEDICAL LABORATORY ASSISTANT?

The medical laboratory is inside a hospital or medical clinic building. It is clean environment, well heated, lighted and ventilated but may occasionally be subject to various unpleasant or noxious odors. The danger of cuts and burns from laboratory equipment and apparatus may be minimized by careful observance of safety precautions and regulations. Likewise the possibility of infection due to the nature of the materials handled can be greatly reduced by application of adequate knowledge of their characteristics and asepsis techniques.

WHAT IS THE EMPLOYMENT OUTLOOK FOR LABORATORY ASSISTANTS IN UTAH?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation and other developments seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services, job opportunities for Medical Laboratory Assistants will undoubtedly share in the increase.

There are several hundred medical laboratory assistants employed in Utah at this time. If present rates of expansion and replacement continue to prevail their number will continue to increase during the next decade. Medical Laboratory Technicians will experience along with the professional and nursing staffs of hospital and health service organizations a favorable rate of increase.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U.S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The librarian who maintains the medical records (case histories, clinical files and related indexes) of hospital, clinic or professional office and prepares statistical reports and medical abstracts is the subject of this job guide.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Medical Records Librarian uses professional skill in the processing, storing and retrieving medical records as well as in their actual use and interpretation. Records of medical and surgical treatment are reviewed as the patients are being discharged from the hospital to assure completeness and accuracy. The attending physician is requested to complete any portion inadequate and sign the document to assure its authenticity. Verification is made to assure all charts, graphs, etc. or other supporting documents are in the record or securely attached. Collects and catalogs medical data.

The Medical Records Librarian codes (or verifies the coding of) diagnosis, operations, diseases, and other information according to standard and recognized nomenclature and approved classification system. Cross indexes of diseases and operations are prepared and maintained to facilitate research and retrieval of information. Prepares and maintains alphabetical, medical audit and other indexes of patients and their records as well as related cross indexes by physician and account number.

The Medical Records Librarian conducts research of medical and clinical records and may design and develop or adapt the department's system and methods to make medical data more available or accessible. Periodic and statistical reports are prepared to analyze various aspects of hospital and medical-health services utilizing specialized knowledge of medical terminology and classification of disease, surgical operations, and other data.

The Medical Records Librarian provides information about data in the medical records and on the patients' charts by telephone correspondence and personal interview; hospital policy and state law regarding divulgence of information and privileged communications are carefully observed in this regard with questionable matters or inquiries referred to the administrator. May represent hospital in Court cases involving subpoena of records. Performs related duties as required.

WHERE DO MEDICAL RECORDS LIBRARIANS WORK IN UTAH?

The majority of Utah's Medical Records Librarians are employed in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. They work in the library or records rooms of the states hospitals, clinics and health research establishments.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS?

Two years of college training is the minimum requirement for professional registration as a Medical Records Librarian. The trend is toward higher standards which will eventually, it is believed, include college graduation and one year experience or post graduate work in Medical Records. To be approved by the AMA specific courses must be completed in the medical records area.
Persons planning on this career should be meticulous. They should be interested in detail and have a willingness to be persistent in obtaining detail. They must be discreet in processing and releasing confidential information. The Medical Records Librarian in a larger institution may with proper training and aptitude advance to a supervisory position.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE NEEDED?

Responsibility for: Maintenance and care of all medical records in hospital. Review and analysis of records to insure internal consistency and completeness. Cooperation with medical staff to establish secondary records in adjunct departments. Cooperation with Medical Record Committee in defining standards for medical records and establishing means to insure maintenance of these standards. Release of information to individuals or agencies in accordance with hospital regulations and statutes of privileged communication. Vital statistics and morbidity reporting. Cooperation with medical staff in research projects.

Physical Demands: Sits at desk most of working day. Stoops and crouches to use files. Walks short distances about office and hospital corridors. Handles and manipulates office equipment, such as pencil and typewriter.

Special Demands: Ability to work under pressure and conditions of frequent interruption, supervise others, and secure cooperation of other employees. Considerable initiative and judgment involved in collecting and analyzing medical record data, evaluating medical information, recognizing need for improvement or adaptation of existing systems, and effecting changes. Works under nominal supervision, performing duties in an area where procedures are standardized but where frequent independent decisions are required.

HOW MUCH DO MEDICAL RECORDS LIBRARIANS EARN IN UTAH?

The salaries reportedly paid to Medical Records Librarians in Utah cover a wide range - from a low of about $4,500 to $7,000 annually. This seeming disparity may be at least partially explained by the shortage of qualified professionals and the employment of a high percentage of recently trained people. Perhaps a large percentage of those at the bottom of the salary range are actually assistants, or trainees and not Registered Records Librarians. The members of a MDTA Medical Records Technician class in Weber County report they expect to receive $1.70 to $2.10 per hour upon graduation in 1966.

WHAT IS THE EMPLOYMENT OUTLOOK FOR MEDICAL RECORDS LIBRARIANS?

This small, numerically, but important professional occupation is expected to share in the expansion of medical-health services in this state and across the nation during the next decade. A favorable growth rate for this specialized professional occupation in proportion at least to that of other hospital-health service jobs is forecast. Individuals with interests and aptitudes in this area will undoubtedly gain from their decision to choose this profession for their life career.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The Medical Secretary is responsible for performing technical stenographic and general clerical services for Hospital of health administrations and professional staff using special knowledge of medical terminology.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Medical Secretary may be assigned to a variety of different environments and responsibilities as required to accomplish the employer's objectives. Generally in a large hospital the secretary will act as receptionist, answer the telephone and schedule appointments for the superintendent and administrative office or for a major hospital department and its professional staff. General information is given and visitors routed to their destination.

The Medical Secretary uses special knowledge of medical terminology, the human anatomy, physiology, psychiatry, psychology and other words and phrases peculiar to diagnostic and other medical practices as well as the medical-legal relationships peculiar to health services. Verbatim transcriptions of conferences, hearings and complex or technical dictation is typed from shorthand notes, tapes or machine records into desired form, proofread and distributed.

The Medical Secretary prepares reports on various hospital activities such as number and kind of admissions and discharges, out-patient treatments, births, deaths, disease and surgical operations performed, may take abstracts of case records. May answer routine correspondence on own initiative, may transcribe findings of clinical tests to permanent record forms, and personally perform a variety of general clerical work in the office.

The Medical Secretary may supervise one or more stenographers, typists, office machine operators, file and general office clerks, training new employees, assigning tasks and examining production for conformance to quality and quantity standards. Orders or requisitions office supplies and materials, maintains inventory of office supplies, may prepare payroll and other confidential documents, may perform related assignments as requested.

WHERE DOES THE MEDICAL SECRETARY WORK IN UTAH?

The majority of Medical Secretaries are employed in the five county area of Box Elder, Davis, Salt Lake, Utah, Weber. They work in the administrative or departmented offices of the larger hospitals and clinics and in the general office for the smaller institutions and Professionals.

WHAT ARE THE EDUCATION & TRAINING REQUIREMENTS FOR THE MEDICAL SECRETARY?

High or commercial school graduation with courses in medical terminology, stenography and typing, English, and some mathematics. Two years of college are preferable, including a course in medical secretarial work is desirable. Experience as a Secretary or stenographer in a hospital or related health agency is usually required and some editorial training or experience desirable. Must be familiar with a system of shorthand or transcribing from tapes or recordings, be
able to type a minimum of 50 words a minute, and make simple arithmetic calculations. Familiarity with medical terminology, rules of grammar, spelling, punctuation; and hospital routine is essential.

WHAT SPECIAL PERSONAL CHARACTERISTICS OR PHYSICAL ACTIVITIES ARE REQUIRED?

The Medical Secretary has responsibility for the accurate transcription of dictated material and records, and orderly condition of files. Type 50 words a minute, shorthand 80 words a minute a minimum requirement. She sits at desk most of working day. Finger dexterity and eye-hand coordination in taking dictation and typing. Walks short distances. Stoops and bends when using files.

The Medical Secretary must exercise courtesy and cooperation in dealing with patients, visitors, and staff members. May be required to work rapidly for short periods under conditions of frequent interruption. Attention to numerous details required for short periods of time. Some initiative and judgment involved in answering correspondence, interviewing visitors, and training clerical workers. Works under general supervision, performing a variety of standardized clerical tasks.

How much do medical secretaries earn in Utah?

The usual wage range for medical secretaries is between $4,000 and $5,000 a year. A few exceptionally well qualified secretaries with complex and heavy responsibilities in the larger health offices may earn up to about the $6,000 per year scale. Medical Secretary trainees in an MDTA course in Weber County report they expect to receive between $1.70 and $2.00 an hour upon completion of the course in early 1966.

What is the employment outlook for medical secretaries?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation and other developments seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services job opportunities for medical secretaries will undoubtedly share in the increase.

The number of Medical Secretaries employed in Utah at this time is thought to number close to 200. If present rates of expansion and replacement continue to prevail their number will continue to increase during the next decade.

Where can you go for more occupational or career guidance information?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Dept. of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
MEDICAL SOCIAL WORKER

This job guide discusses the occupation of the person who provides social case work service to hospital and medical patients as well as participates in the development of social and health programs for the community.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Medical Social Worker provides a social case work service by helping patients with personal and environmental difficulties which predispose toward illness or interfere with obtaining maximum benefits from medical care: Interviews patient and members of family, and participates in conference on behalf of patient with other professional persons within hospital and other community agencies.

The Medical Social Worker performs a variety of services such as advising on social problems, arranging for discharge or postoperative care at home or in institutions, placement of children in foster homes or adults in nursing home, financial assistance to patient of family during disfiguring illnesses, or uncertain future. Utilizes such resources as family and community agencies to assist patient to resume life in community or to learn to live with disability.

The Medical Social Worker prepares and keeps current a case record, including nature of social problems, how patient and family are meeting them, and what case worker is doing. Includes among medical progress notes on patient's medical chart or on a consultation sheet in medical chart, pertinent summaries or notes containing related social information helpful to attending physicians.

The Medical Social Worker participates in planning hospital's program, policies, and procedures: Observes effects of current policies and informs case work supervisor of gaps in program. Participates in relationships with community agencies through interpretation of hospital program and by taking part in community activities related to health and welfare services. Participates formally and informally in educational program. May supervise students and beginning case-workers when a capacity for and interest in supervision are shown.

The Medical Social Worker may participate in studies and research projects involving community planning or concerned with problems occurring in field of medical social work. Prepares statistical reports of number of patients to whom case work is given for use in planning further programs, evaluating department's performance, and as a basis for research projects. Performs related duties as required.

WHERE ARE MEDICAL SOCIAL WORKERS EMPLOYED IN UTAH?

The majority of Utah's Medical Social Workers are employed by the hospitals located in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. Others are employed by rehabilitation centers, health agencies, and the welfare department. They function as part of the medical team composed of doctors, nurses and therapists. They work directly with the patients and their families helping them meet problems accompanying illness, recovery and rehabilitation.
WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB

Education: Recommended desirable qualification is a Master's degree from a school of social work accredited by the American Association of Schools of Social Work, with a sequence preferably in medical social case work.

Job Knowledge: Thorough knowledge of the case work process, medical and public health settings, principles of public welfare, and processes underlying social group work, community organization, social welfare administration, and social research. Working knowledge of social and health resources of community, and of individual in health and disease.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

Responsibility for: Quality of social case work service performed. Assistance to patients with personal or environmental difficulties which predispose toward illness or interfere with obtaining maximum benefits from medical care. Contribution to an understanding of the ill person on part of associates.


WHAT DO MEDICAL SOCIAL WORKERS EARN IN UTAH?

The salary of medical social workers usually falls into the $5,000 - $6,000 a year range, those with a Masters degree possibly a thousand dollars or more a year higher than those with a bachelors degree. A medical social worker with a doctors degree and commensurate supervisory or executive assignment would be paid at an even higher salary schedule.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION?

The employment outlook for Medical Social workers is considered excellent not only in Utah but also throughout the United States. This occupation as a part of the broader Social Worker classification is one of the "six best" as far as employment opportunities are concerned states the U. S. Department of Labor. Currently three times as many positions are available as there are qualified workers.

Medical Social Workers are needed in Utah and elsewhere for employment in Hospitals, Clinics, public and private health centers, Military and Veterans groups, crippled children, blind and deaf people of all ages; people with T. B., heart, cancer and other diseases are the concern of the Medical Social Worker. Teaching in University Schools of Medicine, Public Health, Social Work, Nursing and other courses is another area offering employment opportunities to this occupation.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
MEDICAL TECHNOLOGIST, CHIEF

This job guide discusses the occupation of the Technician who supervises hospital laboratory workers and assists Pathologists and Scientists by performing laboratory tests and microscopically examining body fluids and tissues.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Medical Technologist uses a microscope to examine cultured samples of body tissues and fluid to determine the presence of bacteria, fungus or other organisms. The samples are then analyzed for specific reactions, chemical content and other factors to assist the physician in the diagnosis of his patient's disease.

The Medical Technologist types and cross matches blood samples, determines blood coagulation time and sedimentation rates, measures basal metabolism, analyzes water, food products and other material for bacteria. Slides are prepared from sample tissues and body cells with speed and accuracy for patients whose diagnosis is urgent as in the situation of suspected malignancy.

The Medical Technologist working in a large laboratory may specialize in one related area such as bacteriology, parasitology, biochemistry, hematology, histology, virology, cytology, etc. Those assigned to work in a small laboratory, particularly in a rural area may perform many types of tests and examinations.

The Medical Technologist may, in addition to assisting the pathologist or physician concerned with diagnosing a patient, do research on the improvement of laboratory techniques or new drugs. Teaching in a college or school of medical Technology, performing administrative and executive duties, acting as a sales representative for a pharmaceutical firm or hospital equipment and supplies manufacturer, are other areas of possible interest.

The Medical Technologist prepares vaccines, takes electrocardiograms and practices strict principles of asepsis to prevent contamination or infection. He supervises and instructs laboratory helpers and trainees, observes, demonstrates and evaluates their activities to improve job efficiency, attends conferences, consults with physicians, maintains records, makes reports and performs related activities.

WHERE DO MEDICAL TECHNOLOGISTS WORK IN UTAH?

The majority of Utah's Medical Technologists are employed in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. They work in the laboratories of the larger hospitals and medical clinics of the state.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR MEDICAL TECHNOLOGISTS?

The Medical Technologist should be a graduate of college with completion of courses in chemistry, the biological sciences, mathematics and medical technology at one of the some 800 Hospital Schools of Medical Technology approved by the American Medical Association.

Registration with the American Society of Clinical Pathologists is accomplished by passing their examination and serves as proof of being accredited a member of the profession. Usually new employees are assigned to work as a member of a team.
of technologists in the larger laboratories and no experience requirements are made by hospital administrators.

WHAT SPECIAL PERSONAL CHARACTERISTICS & PHYSICAL ACTIVITIES ARE REQUIRED?

The Medical Technologist should be a high school graduate, accurate, patient and dependable and have the ability to work under pressure. Aptitudes of verbal ability, intelligence, form and clerical perception are needed. Interests should be in science and scientific methods of fact finding.

Temperament should be such as to evaluate results of medical laboratory tests and research examinations. This is considered light work but there is considerable standing, frequent reading and handling manual dexterity, color vision and good eyesight (with or without glasses) required.

HOW MUCH DO MEDICAL TECHNOLOGISTS EARN IN UTAH?

Utah employers usually offer relatively inexperienced Medical Technologists in the $350 - $400 a month range when they have a vacancy on a hospital or clinic laboratory staff. Medical Technologists with experience and tenure and certain Federal Civil Service positions have a salary scale as high as the $500 - $600 a month range.

Medical Technologist trainees in the Weber County area report expected earnings at the completion of a one year MDTA training course to be in the $2.00 - $2.50 per hour range. Some confusion exists relative to this title which has, at times, been erroneously applied to the less skilled Laboratory Assistant.

WHAT IS THE EMPLOYMENT OUTLOOK FOR MEDICAL TECHNOLOGISTS IN UTAH?

The demand for medical technologists is expected to grow during the coming years. The favorable forecast is based on several recent developments in the Medical-Health area in this state within recent months. One important factor is the scheduled construction of a large new hospital within the next two years as well as several important renovation projects.

Population growth trends continue upward and the Medicare legislation was recently passed by the National Congress. Older citizens indicate an increasing use will be made of medical and hospital facilities. The occupation of Medical Technologist will probably grow at a faster rate than the total labor force to share with other health occupations in an expansion of numbers.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
NURSE AIDE

The Nurse Aide assists professional nursing personnel with routine and relatively simple tasks to provide various services to patients for their comfort and well-being.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

The Nurse Aide performs a variety of tasks in and around a hospital; she works under the supervision of a registered or licensed nurse, performing duties as assigned; she may escort patients from admitting room to ward or room; and she may assist patients in changing from street clothes to hospital garments.

The Nurse Aide may assist ambulatory patients in tub-bath or shower; she helps patient with personal grooming such as brushing hair and teeth and caring for nails, she provides drinking water, feeds or assists patients with meals and removed trays; and she waters and arranges flowers to beautify rooms and make them more cheerful for patients.

The Nurse Aide answers patients' signal lights, providing needed service (when qualified); or calls for "R.N." when unusual symptoms are detected; she changes bed linens, cleans and sterilizes equipment and instruments; she may clean a room in preparation for the next patient; she works in linen room as needed; and she follows closely all instructions given by supervisors.

WHERE ARE NURSE AIDES EMPLOYED IN UTAH?

Approximately three-fourths of Utah's nurse aids work in the populous five county Wasatch Front Area (including Box Elder, Davis, Salt Lake, Utah, and Weber Counties). The Nurse Aide works constantly around patients, other workers, and the public. Working environment varies according to type and size of place where employed, but usually is in a modern, well equipped hospital building which is adequately lighted and ventilated. She may have to work in semi-darkness at night to avoid disturbing the sleeping patients. The work of the nurse aide varies widely from area to area and even within the same hospital.

In some instances, the aide's duties will be very routine, at other times some judgment may be required. Hazards include possible injury from operation and cleaning of equipment; however, injuries are infrequent and in most cases present no problem. There is normally an eight-hour day, forty-hour week. Shift work is required in all hospitals, although not all hospitals practice shift rotation. Overtime work might be necessary at times when emergencies arise.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR THIS OCCUPATION?

There are no set requirements as to age and education to enter this field. Most hospitals, however, prefer a person who has a high school education and is over 18 years of age. Most hospitals give on-the-job training which varies in length depending on the policy of the institution. Some nurse aides receive training by working under close supervision for the first few weeks, while others receive formal or classroom instructions. Persons who have completed a Red Cross course in first aid or those who have started professional nurses' training and dropped out are usually given priority in hiring.
There are no schools in Utah with training programs for this occupation. Most hospitals employ inexperienced entry workers and provide on-the-job training. The larger hospitals offer the greatest number of job opportunities for young women desiring nurse aide work. The aptitude test for this occupation administered by the Utah Department of Employment Security will indicate your likelihood for successful performance on the job.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED FOR THIS WORK?

The person planning to enter this vocation should consider personal characteristics and ask: Do I possess tact? Patience? Sincerity? Dependability? Emotional stability? Pleasantness? A desire to help people? The ability to meet with difficult situations and take unpleasant duties without complaint? An affirmative answer to these questions would indicate that the individual possesses many of the qualities needed to perform the duties properly.

The Nurse Aide should possess good physical and mental health as well as learning ability, clerical perception, coordination, and manual dexterity. These qualities can be determined within reasonable limits by administering the Employment Security Agency's aptitude test for nurse aids which is available to you in most public employment offices in Utah.

HOW MUCH DO NURSE AIDES EARN IN UTAH?

The usual wage range for the majority of Nurse Aides in the Wasatch Front area of Utah is in the $200 - $225 per month area. The State minimum wage standard for women is $1.15 per hour (1966). Some nursing homes quote a $1.25 an hour wage to job applicants in this occupation. A few employers are known to pay as much as $1.00 a day additional wage to employees of long tenure and exceptional competency.

WHAT IS THE EMPLOYMENT OUTLOOK FOR NURSE AIDES IN UTAH?

Prospects are good and expected to remain constant. The increased use of hospital service has created a shortage of professional nurses, and more aides are hired to lessen the burden of caring for the many details which do not require advanced training. As new hospitals are built and the population increases, the need for more personnel will also increase. Turnover will also provide frequent openings in this field.

Advancement opportunities for the nurse aide are quite limited without specialized training. If advancement is desired, the nurse aide should take a training course to become a licensed practical nurse, or the more extensive training study needed to become a registered nurse.

WHERE CAN YOU GO FOR ADDITIONAL OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices listed on the face of this Job Guide or at your nearest hospital. The "Occupational Outlook Handbook," published by the United States Department of Labor's Bureau of Labor Statistics also contains much information on this job and related hospital and health service occupations. You may wish to inquire at your local hospital or ask the Utah Nurses Association about the requirements and satisfactions of being a Nurse's Aide. Your school counselor or local public library are other sources of information about this job.
The professional Nurse occupation described in this job guide provides or supervises direct nursing care as authorized by registration with the Utah State Board of Nurse Registration and Nursing Education.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB.

A registered nurse has a variety of career opportunities within the profession. She furnishes nursing services to patients, either by giving direct nursing care or by supervising allied nursing personnel. Nursing work is performed in any one of a variety of places including hospitals, homes, industrial establishments, physicians' offices, the armed forces, and public health agencies. Tasks are performed such as administering medications and treatments as prescribed by a physician; observing, evaluating, and recording symptoms, reactions, and progress of patients; assisting in patient education and rehabilitation; improving the physical and emotional environment of patients; and instructing auxiliary nursing workers.

As the person with primary responsibility for carrying out physicians' instructions and with independent nursing duties, she is an important member of the medical health team, and is concerned mainly with performing the more skilled bedside services such as caring for patients after surgery, assisting with blood transfusions and intravenous feeding, and giving medications. A nurse works closely with physician, dietitian, and medical social worker in caring for the sick and injured, preventing illness, and promoting good health.

A registered nurse may specialize in hospital and institutional care where there are several levels of duty: general duty, assistant head nurse, head nurse, supervisor, and director. A registered nurse may specialize as an office nurse and work for a physician or in a clinic; as a private duty nurse and work directly for the family either in hospitals or homes; as a public health nurse and be employed by public or private health agencies; as an occupational health nurse giving nursing care principally to company employees in business or industry; and as a nurse educator to teach student nurses.

HOW DO YOU QUALIFY AS A REGISTERED NURSE IN UTAH?

Utah Law 58-14-7 states: "An applicant for a license to practice as a registered nurse shall submit to the Utah State Nurses Examining Committee written evidence, verified by oath that the applicant: (1) is eighteen years of age or more; (2) is a citizen of the United States or has legally declared intention of becoming a citizen; (3) is of good character; (4) is in good physical and mental health; (5) has completed at least an accredited high school course of study or the equivalent thereof as determined by the state Department of Public Instruction and shall meet such other preliminary qualifications and requirements as the Committee may prescribe; (6) has completed a course of study in an accredited school of nursing and holds a diploma therefrom."

An accredited school usually conducts a three-year program of training combined with practical experience in a hospital. The high school subjects in which you obtained good grades should include physiology, biology, chemistry, and other science subjects.
Utah residents who serve in the United States military forces and qualify as a commissioned officer in one of the nursing corps may also meet the requirements to register as a professional nurse with the Utah Department of Nurse Registration located at the State Capitol Building.

WHAT SPECIAL PERSONAL CHARACTERISTICS OR PHYSICAL ACTIVITIES ARE REQUIRED?

A person interested in entering the nursing profession should consider her personal qualities and ask: "Do I have a genuine interest in people? - emotional maturity? sincerity? - a sense of responsibility? - good judgment? - ability to be composed in difficult situations? - reliability? - a sense of humor? - adaptability? - tolerance and generosity?" An affirmative answer to these questions would indicate possession of the major personal qualities needed for success in this profession. Good numerical aptitudes, good general learning ability, and clerical perceptions are also needed. These traits can be measured by the Utah Employment Security Agency's aptitude tests.

WHERE ARE REGISTERED NURSES EMPLOYED IN UTAH?

Working environment varies considerably depending on type of nursing performed and the establishment in which employed; however, in most cases, the work is performed in modern, well-equipped hospitals or offices which makes the environment quite satisfactory. Nurses may be subject to Sunday and holiday work schedules, rotating shifts, and night work. Hazards include subjection to contagious and communicable diseases, emotional stress, and pressure and tension of emergency cases. Probably over 75% of Utah's Registered Nurses are employed in the populous five county area of Box Elder, Davis, Salt Lake, Utah, Weber.

HOW MUCH DO PROFESSIONAL REGISTERED NURSES EARN IN UTAH EMPLOYMENT?

Most registered nurses in Utah are paid a monthly wage based on a 40-hour week. Some, however, are paid an hourly rate. The rate of pay is fairly uniform throughout the state, ranging from $300 to $350 per month. Normally, extra compensation is paid for evenings and night work and for special services such as delivery room and operating room nursing. Also, higher wages may be obtained through specialization and/or supervision. Annual vacations, reduction in medical and hospital expenses, and availability of group insurance are among the most common fringe benefits. The more desirable shifts are obtained through seniority and specialization.

WHAT IS THE EMPLOYMENT OUTLOOK FOR RN's IN UTAH?

Employment opportunities are very good for the Registered Nurse in Utah. Their number is expected to increase from 3000 to 4000 by 1975. The question will not be, "Where can I find a job?" but "Which one shall I choose?" A large number of positions are vacant because there are not enough nurses to fill them. This outlook will probably remain the same for several years due to the following factors: increased employment of nurses by industry; hospital and health insurance programs creating the need of more nurses; new methods of treatment; continued development of scientific equipment; and the use of many new drugs. Many nurses have removed themselves from the field by marriage, family obligations, and retirement; however, a married person can still follow a career in nursing. Nursing is a career which can be easily picked up again after having been dropped, therefore, giving security to the trained nurse even though she does not actively practice nursing.

WHERE CAN YOU GO FOR ADDITIONAL OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information on this occupation at any of Utah's twelve local public employment offices or at your local hospital. The Utah State Nurses Association, 158 East 2nd South, Salt Lake City, or the American Nurses Association, 10 Columbus Circle, New York 19, New York, will furnish data on this profession. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics also contains considerable information on Nursing and related medical and health occupations and careers.
NURSING HOME OPERATOR

The occupation of the operator of a sanitarium or institution devoted to caring for people unable due to age, injury or health condition to fully be responsible for their own welfare is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB.

The nursing home operator (administrator, manager, nurse-owner are alternate titles) is responsible for the efficient operation of a nursing care facility devoted to the needs of some select population group. Aged people are perhaps the most common designation although some geriatric homes specify only men, others only women, still others prefer married couples.

The nursing home operator may cater to the needs of the chronically ill regardless of age. Other homes may specialize in care of bed patients, while some prefer ambulatory patients. Post-operative nursing care and physical therapy service are the specialty of certain nursing homes designed for the convalescing post-operative person regardless of age.

The nursing home operator may personally care for a relatively few patients in a private home with one or two assistants or may be in charge of a staff of 20 or 30 nursing service employees with 50-100 patient-clients. Dormicillary care of infirm or senile persons rather than nursing and medical service may be the major portion of some nursing home operators activities and responsibilities.

The nursing home operator arranges for the services of physicians and registered nurses as required. Also clergymen, barbers, cosmetologists are called and personal grooming assistance given when requested. Pharmaceuticals, special diets, occupational and recreational therapy and facilities, letter writing - reading and other corralory services are provided in most institutions providing "the home away from home" atmosphere.

The nursing home operator hires and trains employees, purchases food and supplies, and arranges for building and grounds maintenance. Family and friends are notified of patient's critical illness and if death occurs the mortician is called. In brief, the nursing home operator attempts to make life as pleasant as possible for people unable to live in their own homes.

WHERE ARE NURSING HOME OPERATORS EMPLOYED IN UTAH?

The majority of Utah's some 400-500 nursing homes are located in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. It logically follows then that most of the nursing home operators are also employed in this same area. Perhaps a higher percentage of self employed operators are found in rural than in urban areas.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR THIS WORK?

The nursing home operator should have at least a high school education or its equivalent as a basic foundation for further training and study in the nursing profession. Successful completion of an approved course of study for either a licensed practical nurse or a registered nurse and passing of a state examination is needed.
One other requirement is obtaining a Utah State license to engage in the occupation of Nursing Home Operator. Continued activity in this profession is dependant upon conformance to state regulations and standards. Operators whose licenses have been revoked may not legally perform the functions of the occupation. Local or municipal controls may be found in some areas in addition to the state and professional standards.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE NEEDED?

Persons entering this occupation should be able to perform moderate to arduous work, have a pleasant personality, physical stamina, and patience. This job requires both mental and physical alertness in performing the various activity assignments. This job requires standing, walking, and sometimes running. Finger and hand dexterity is necessary in administering to patients' needs, cleaning instruments and equipment. The ability to see, talk, and hear without difficulty is essential. Strength of back and arms is required in lifting, turning, or caring for patients. Job entrants must pass a physical examination and be free of communicable diseases.

HOW MUCH DO NURSING HOME OPERATORS EARN IN UTAH?

Salaried employees engaged in the operation and management of a nursing home will receive payment in some measure proportionate to their assumption of responsibilities. The more patients and the more employees the higher the salary as a general rule. If the employee is a Nurse RN she will likely receive more than an LPN. A general salary range is thought to be from $3,000 to $5,000 per year. A few administrators of the larger nursing homes may earn as high as $500 - $600 a month.

Self employed nursing home operators are reluctant to discuss their profits or net income. Many of them go to considerable expense to establish and maintain facilities that meet state and local standards. Those owning real estate and buildings should receive a fair return on investment as well as for their personal services. It is believed the typical full time self employed operator of a moderate sized nursing home would have a net income in the $4,000 - $8,000 a year range.

WHAT IS THE EMPLOYMENT OUTLOOK FOR NURSING HOME OPERATORS?

The Utah report of licenses issued to nursing home operators in 1959 showed a figure of 209; this number had increased to 350 licensed operators in 1963. At this rate of growth, and in consideration of recent health legislation including Medicare, it is quite possible there will be some 500-600 nursing home operators in Utah by the early part of the 1970 decade. This rate of growth is faster than the average of all occupations, and compares favorably with other health service occupations. Several hundred Utah people will undoubtedly make it their choice of a career during the next few years.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices whose locations are shown on the job guide or may be found in your local telephone directory. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation of the person who assists in the treatment and rehabilitation of hospital patients by planning and providing recreational and work activities is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Occupational therapists, following physicians' instructions, select and direct educational, vocational, and recreational activities designed to meet the specific needs of patients. They work as members of a medical team whose purpose is to restore maximum function to mentally or physically disabled patients. In addition to physicians, the team may include physical therapists, nurses, social workers, and other specialists.

The rehabilitation goals set for the patient may include regaining physical, mental, or emotional stability; combating boredom during a long-term illness; developing maximum self-sufficiency in the routine of daily living (such as eating, dressing, writing, and using a telephone); and, in the latter stage of treatment, to perform jobs in a practical work situation.

As part of the treatment program, occupational therapists teach manual and creative arts such as weaving, clay modeling, and leatherworking, as well as business and industrial skills such as typing, operating some business machines, and using power tools. Therapists may be required to design and make special equipment or slings to aid some disabled patients in performing their activities.

Other duties may include supervision of volunteer workers, student therapists, occupational therapy assistants, and auxiliary nursing workers. The largest group of occupational therapists work with psychiatric patients; the next largest number work with persons having physical disabilities; a sizable number work with children, including those with cerebral palsy; and most of the remainder work with the mentally retarded or elderly patients.

The chief occupational therapist in a hospital may teach medical and nursing students the principles of occupational therapy. Many occupational therapists have administrative duties such as directing occupational therapy programs, coordinating patient activities, and acting as consultants to local and state health departments and mental health authorities.

WHERE DO OCCUPATIONAL THERAPISTS WORK IN UTAH?

The majority of Utah's Occupational Therapists are employed by the larger hospitals of the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. They also work in the rehabilitation centers, outpatient clinics, nursing homes and medical research centers and some are employed by special workshops or clinics for handicapped people in several age groups.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS OF THIS OCCUPATION?

A general requirement for entry into this occupation is graduation from a college approved by the American Occupational Therapy Association as well as the American Medical Association. About a year's clinical practice in an approved hospital or
Clinic is required before the registration examination may be taken. Successful examinees are entitled to use the initials OTR after their names, (Occupational Therapist Registered).

The Occupational Therapist should have an understanding of patient's interest at emotional level at which found, working knowledge of one or more crafts or hobbies, know how to position patients with various diseases so that they maintain good functional positions without danger of injury. They should be familiar with duties of many occupations, understand physical requirements of each and understand mechanical functioning of body in order to match assigned activities to physical and psychological requirements of treatment.

**WHAT SPECIAL PERSONAL CHARACTERISTICS & PHYSICAL ACTIVITIES ARE REQUIRED?**

Occupational Therapists are responsible for developing a progressive program that will result in mental and physical improvement of patient, care and treatment of patients in accordance with hospital regulations and approved techniques of occupational therapy, devising courses of therapy in accordance with prescription of a physician, administering work projects that will not injure patient, care and use of occupational and recreational supplies, and sale of such items as are made by patients for sale.

Occupational Therapists should have a willingness to work with a variety of patients, (many in disturbed conditions) tact and sympathy in dealing with patients and alertness for signs of unfavorable symptoms. They should have considerable initiative and judgment in selecting specific activities in accordance with prescription of physician, interpreting and recording results and reactions, developing and maintaining work schedules, and securing cooperation of patient.

**HOW MUCH DO OCCUPATIONAL THERAPISTS EARN IN UTAH?**

Utah's Occupational Therapists report earnings ranging from about $5,000 a year as beginning salary for relatively inexperienced graduates, to some $6,000 or $7,000 a year for Registered Therapists. A few Occupational Therapists in top supervisory positions will of course have somewhat higher salaries, approaching the neighborhood of $9,000 to $10,000 a year.

**WHAT IS THE EMPLOYMENT OUTLOOK FOR OCCUPATIONAL THERAPISTS?**

There are a limited number of Occupational Therapists in Utah and even when combined with Physical Therapists the occupation probably numbers less than one hundred people. Both men and women find opportunities in this growing occupation and most of the positions occur in hospitals. All evidence points to continued steady growth of the occupation and specialization is occurring in such fields as psychiatry, cerebral palsy, polio, heart disease, and in work with the aged.

**WHERE CAN YOU OBTAIN MORE OCCUPATIONAL & CAREER GUIDANCE INFORMATION?**

You can get information at any of Utah's twelve local public employment service offices. Their locations are shown on this job guide and in your local telephone directory. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
OPTOMETRIST

The occupation of the person who examines eyes to determine visual difficulties and prescribes treatment or lenses to correct or improve vision is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Optometrists examine eyes and perform other services to safeguard and improve vision. They use special instruments and tests to find and measure defects in vision and, when needed, prescribe eyeglasses, contact lenses and eye exercises or other treatment that does not require drugs or surgery.

Most Optometrists supply their patients with the eyeglasses prescribed, though some do only minor repair work, such as straightening frames or replacing nose pieces on glasses.

The prescribing optometrist may specialize in vision training, children's vision problems or aids to the partially sighted. A few optometrists specialize in work such as fitting persons who are nearly blind with telescopic spectacles, studying the relationship of vision to highway safety, and analyzing lighting and other conditions that affect the efficiency of workers in industry or business. Others are engaged primarily in teaching, research, or a combination of the two.

Optometrists should not be confused with ophthalmologists, oculists, or dispensing opticians. Ophthalmologists and oculists are physicians who specialize in the medical and surgical care of the eyes and may prescribe drugs or other treatment as well as lenses. Dispensing opticians fit and adjust eyeglasses according to prescriptions written by ophthalmologists or optometrists; they do not examine eyes or prescribe treatment.

WHERE DO OPTOMETRISTS PRACTICE THEIR PROFESSION IN UTAH?

The majority of Utah's optometrists engage in private practice in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. Some work in clinics or as salaried assistants to established practitioners.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR OPTOMETRISTS?

To qualify as an optometrist in Utah one must pass the written examination given by the State Business Regulation and Registration Department to practice as an optometrist as well as an interview by the state board. After high school graduation you study at an approved college in a pre-optometry course which includes such subjects as mathematics, physics, biology, chemistry, English and certain liberal arts subjects.

Students should choose a school of optometry that is approved by the Utah Optometry Board if they intend to practice in this state. The requirements for entry to schools of optometry vary. Some require a college degree, others will accept students who have successfully completed a two or three year pre-optometry course.
Most schools of optometry have both classroom and laboratory work as well as an opportunity to gain professional experience in the clinic operated by the school. Optometrists who wish to specialize often take additional training. A master's or Ph. D. degree in physiological optics or in a related field is usually required for research or related work.

WHAT PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

A prospective optometrist should have a liking for mathematical and scientific work and the ability to use delicate precision instruments. Verbal, numerical, and spatial ability are desirable aptitudes. Persons in this occupation need good vision and frequently use their arms and hands.

The optometrist must be able to deal with people tactfully. The work is inside in comfortable pleasant office surroundings. The graduate starts his career either by working as an assistant to an established practitioner or by establishing his own location and practice or by purchasing the business of an optometrist who wishes to retire or move, this of course may require more finances than a student would have.

HOW MUCH DO OPTOMETRISTS EARN IN UTAH PRACTICE?

Optometrists like other professional people are somewhat reluctant to discuss their financial income. From the limited data available it would appear their average annual income ranges from about $8,000 to $15,000 depending on location and clientele. Relatively inexperienced practitioners may earn somewhat less during the early months of establishing a practice. Optometrists employed on a salary basis reported weekly earnings in the $100 - $200 wage range.

WHAT IS THE EMPLOYMENT OUTLOOK FOR OPTOMETRISTS IN UTAH?

The increased interest in health service and protection being displayed by all segments of the American population has its effect upon the Utah Optometrists' profession. Many opportunities occur for new optometry graduates to associate with established practitioners or even to build their own practice. Those with advanced degrees might also find available positions in teaching or research.

The Utah Business Regulation Department reports it issued 153 continuing and new optometrist licenses in 1959 and in 1963 the number was 163. The number of optometrists practicing and licensed in Utah is expected to exceed 200 by the early part of the 1970s. The rate of growth for this occupation is expected to remain steady and upward. Perhaps not as fast as some health occupations but certainly fast enough to encourage interested people to choose this career.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices whose locations are shown on the face of this job guide or may be found in your local telephone book. The "Occupational Outlook Handbook" published by the U.S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
ORDERLY

The occupation discussed in this job guide is concerned with assisting the professional nursing service personnel in a hospital by performing various heavy lifting duties and helping male patients.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

An Orderly assists the professional nursing staff in a hospital by performing various heavy duty tasks such as lifting invalids into and out of their beds. Lifting is also required for some patients when they are being bathed or dressed. Assistance is given at admitting and discharge.

An Orderly wheels patients to and from the operating, x-ray, and other rooms and may prepare the operating room and surgical instruments for the surgeon. Oxygen and anesthetic tanks may be set up according to standard procedure before the scheduled time of the operation. The patient may be strapped or held in place until completely relaxed from the anesthetic.

An Orderly may do various cleaning and odd jobs about the hospital, and in the operating room may be responsible for disinfecting various materials and sterilizing instruments and equipment. Portable x-ray machines and other equipment may be moved to and returned from the wards. Stretcher patients may be carried to and from an ambulance or to other rooms.

An Orderly may carry meal trays and assist patients needing help with their meals. May answer telephone and call bells, may make beds and give alcohol rubs or massages, may assist patients (particularly male patients) needing help with dressing or personal grooming, may shave and cut hair, performs other duties about the hospital as required.

WHERE ARE ORDERLIES EMPLOYED IN UTAH?

The majority of Utah’s orderlies are employed in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. They work in hospitals of all kinds and assist the professional by performing heavy and routine nursing and custodial tasks.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR ORDERLIES?

Most employers prefer high school graduates with good physical and mental health for the orderly position. They seek mature people with tact, judgment, patience and emotional stability who have a desire to assist with the nursing of sick and injured people. The orderly must be able to meet difficult work situations and perform unpleasant tasks without complaint. The orderly is usually closely supervised and given instruction as to duties in considerable detail.

Some hospitals provide in-service training and education for their unlicensed personnel (orderlies, attendants and nurse aides) and others do not. The inexperienced person hired to work as an orderly will usually receive from three to six months of on-the-job training. During this period not only the supervisor but also an experienced professional nurse or orderly will be available to show what is required and to answer questions and explain procedures in the care of patients.
WHAT PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Orderly should have verbal aptitude, numerical ability, clerical perception and intelligence. Motor coordination and manual dexterity. Also required is the temperament to perform a variety of tasks subject to frequent changes and interruptions with composure. Should have clear speech and good hearing.

This is considered as a heavy lifting position as certain patients must be lifted and moved about as frequently as required while they are being bathed, dressed and at other times. The orderly does considerable walking during the shift.

Since patients must be cared for 24 hours a day and seven days a week, the orderly is subject to shift work. The practice varies with the hospital - an orderly may be assigned a certain shift on a permanent basis or they may be rotated on a schedule. Most hospitals and institutions now maintain a forty hour work week.

HOW MUCH DO HOSPITAL ORDERLIES EARN IN UTAH?

An inexperienced person starting to work as an orderly may expect a salary in the $250 to $300 wage range. Older and more experienced orderlies report earnings averaging in the $300 to $350 range. A few highly qualified orderlies, particularly those with additional responsibilities such as supervision may earn as high as the $400 a month wage level. Usually one meal a shift is provided the orderly.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION IN UTAH?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation and other developments seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services, job opportunities for Orderlies will undoubtedly share in the increase.

Hospital administrators have determined that professional nursing shortages make it imperative that unlicensed assistants be employed wherever and whenever possible. Domiciliary care of custodial and chronically ill patients is an area where this seems particularly practicable and certainly enhances the employment opportunities for this occupation.

The number of Orderlies (including male ward attendants and psychiatric aides) employed in Utah at this time is thought to number close to 1,000. If present rates of expansion and replacement continue to prevail, their number will continue to increase during the next decade. Unlicensed nursing personnel will experience along with the professional nursing staff a favorable rate of increase, their total number including both male and female aides may read 4,000 by 1975.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation described in this job guide is that of the physician who emphasizes manual manipulation but also uses drugs, surgery and other methods of medical care. Utah and the other states have varying licensing restrictions.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Osteopathic physicians emphasize manual manipulation in treating patients, and in most States also use surgery, drugs, and all other accepted methods of medical care. Most are "family doctors" who engage in general practice. These physicians usually see patients in their offices, make house calls, and treat patients in osteopathic and some city and county hospitals. A few doctors of osteopathy are engaged primarily in research, teaching, or writing and editing scientific books and journals.

Osteopathic physicians in growing number specialize in one of the following twelve fields of practice: Internal medicine, neurology and psychiatry, ophthalmology and otorhinolaryngology, pediatrics, anesthesiology, physical medicine and rehabilitation, dermatology, obstetrics, and gynecology, pathology, proctology, radiology and surgery.

The Osteopathic theory or system of medical therapy was originated some seventy-five years ago. The importance of body mechanics to general good health is emphasized. The value of manipulation in the correction of faulty structures is considered one of the advantages of the osteopathic system.

WHERE ARE OSTEOPATHIC PHYSICIANS LOCATED IN UTAH?

The majority of Utah's Osteopaths engage in private practice in the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. The Utah State Department of Business Regulations reports some 80-90 Osteopaths have been licensed each of the past several years to practice medicine as a Doctor of Osteopathy (D.O.). It is reported that less than 10% of Utah's Osteopaths are employed on a salary basis in Clinics, Hospitals, Educational Institutions or by a Governmental Agency.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS OF THIS PROFESSION?

To qualify as an Osteopath in Utah one must pass the written examination given by the Utah Department of Business Regulation and Registration as well as the Board interview. In about half the states of the Nation a candidate for a license to practice as an Osteopath Physician must first pass an examination in the basic sciences before becoming eligible for the professional examination.

Most states grant licenses, without further examination to Osteopaths who have qualified in another state. The minimum educational requirements are three years of pre-osteopathy college work followed by four years of study in an Osteopathic College for a degree of Doctor of Osteopathy (D.O.). A one year's internship in an Osteopathic Hospital approved by the American Osteopathic Association is served after obtaining the D.O. degree.

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WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Osteopathic physician must be able to make decisions in emergencies, use good judgement and possess emotional stability as much of the work is involved with human tragedy and suffering. Above average intelligence, an interest in Science, and a strong desire to be of service in relieving human suffering is required of this profession.

To keep abreast of the changes constantly occurring in the health services, continuous study will be necessary all the days of a working career. In addition to patience, optimism, idealism, honesty and a liking for people, you will need good health to meet the physical demands placed upon those who practice the profession of Osteopathic Physician.

Some seven or eight years of study and training beyond high school as well as the cost (some estimates indicate a $20,000 figure) of fitting up an office or Clinic and developing a clientele is more than some applicants are prepared to expend.

HOW MUCH DO OSTEOPATHIC PHYSICIANS EARN IN UTAH?

Osteopaths and other professionals are somewhat reluctant to discuss their income. They admit to a comfortable living but as a rule do not specify the exact amount of their financial rewards. Limited data available would indicate that established practitioners in Utah average in the $13,000 - $16,000 annual income range from Osteopathic fees.

WHAT IS THE EMPLOYMENT OUTLOOK FOR OSTEOPATHIC PHYSICIANS IN UTAH?

The Osteopath is a member of a small numerically, but relatively important profession. The records of the Utah Department of Business Regulation indicate that between 80-100 licenses have been issued, annually, during the past decade, to practice as Osteopaths. The next few years will probably see little change in this number.

However, the growth rate for this occupation as with other Health Service occupations should be regarded as favorable. Recent enactment of Medicare Legislation, increased life expectancy, expansion of hospital facilities and the greater awareness on the part of all citizens of the value of medical health care will certainly increase the demand for Osteopaths.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices, or at your nearest Osteopath's Office. The "Occupational Outlook Handbook" published by the U. S. Dept. of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
PATHOLOGIST

The professional and scientific researcher who examines and diagnoses specimen of human tissue to determine presence of disease and ways to prevent or cure is the subject of this job guide.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The Pathologist supervises and directs activities of Pathology Department in accordance with accepted national standards and administrative policies of hospital. Establishes department procedures and methods of operation. Assigns and supervises activities of department personnel. Directs training of resident physicians, interns, and technicians assigned to department. Serves as consultant to other department heads and visiting physicians to interpret laboratory findings and assists in determining appropriate method and extent of treatment necessary.

The Pathologist participates with personnel of other departments in planning joint administrative and technical programs, and recommends methods and procedures for coordination of pathological services with related patient-care services. May engage in research projects and prepare scientific papers on the nature, cause, and behavior of diseases. Lectures to students, professional societies, and organizations in medical field. Requisitions supplies and equipment.

The Pathologist provides pathology services to aid in diagnosis of disease conditions and treatment of patients, and to assist in postmortem diagnosis. Supervises all laboratory work, demonstrating new techniques to staff and performing difficult tasks demanded by complex or unusual situations. Conducts examinations of specimens of body tissue, fluids, and secretions, and diagnoses nature of pathological condition. Prepares report on each case, incorporating recommendations for treatment such as surgery, chemotherapy, or roentgen-ray therapy.

The Pathologist prepares vaccines and immune sera. Conducts autopsies, performing macroscopic anatomical examinations and microscopic studies of all tissue of fluids showing evidence of pathological conditions. Prepares complete report on postmortem study, including description of pathology performed; postmortem diagnosis of disease conditions; and statement of cause of death.

WHERE DOES THE PATHOLOGIST PRACTICE IN UTAH?

The majority of Utah's pathologists practice their profession in the populous five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. They work in the laboratories of the largest hospitals, clinics, universities and Medical Research Centers of that area.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR PATHOLOGISTS?

Pathologists generally have completed an advanced college degree program. For certification by American Board of Pathology, an applicant is required to have (1) 5 years experience, 4 of which shall have been in institutions approved by Council on Medical Education and Hospitals of the American Medical Association or by the board; or (2) 11 years experience if none has been in institutions approved by the board. Must have successfully completed written, oral, and practical examinations.
For certification in pathologic anatomy, applicant must successfully complete a written and oral examination in gross pathology, and a practical examination in microscopic pathology. For certification in clinical pathology, applicant must successfully complete a written, oral, and practical examination in bacteriology, hematology, clinical chemistry, parasitology, serology, and clinical microscopy.

The Pathologist must be familiar with organization and functions of all departments, regulations, policies, and procedures of hospital. Must possess thorough knowledge of principles, literature, standard practices, methods, techniques, and new developments in field of pathology; physiology and anatomy; diversified specialized equipment, instruments, and material required in all phases of pathology; and procedures involved in detecting, analyzing, evaluating, and interpreting manifestations and symptoms of physical conditions from pathological examinations.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Pathologist must be able to communicate findings simply and clearly, both verbally and in writing. An aptitude for biology, chemistry, and mathematics, keen powers of observation, logical thought processes, imagination, and patience are some of the important traits required. Aptitudes needed include finger dexterity, visual acuity and eye-hand coordination.

The Pathologist must be willing to work with the realization that errors may have serious consequences. Considerable initiative and judgment are required to prepare specimens for testing, as well as for the interpretation of findings and the diagnosis of pathological conditions. May be subject to unpleasant odors in laboratory and autopsy room; must exercise extreme care in handling infected or contagious material to avoid contracting disease.

HOW MUCH DO PATHOLOGISTS EARN IN UTAH?

Medical Pathologists and other biological scientists like most professional people do not freely discuss their incomes. However, from the limited data available it would appear that entry salaries for inexperienced applicants with bachelor's degree would range from about $5,000; with a master's degree from about $6,000 or $7,000; and those with a doctor's degree almost $10,000. Pathologists with some experience and demonstrated capacity for their profession may reach annual income in the $12,000 - $15,000 income range.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS PROFESSION?

The competent and well-trained Pathologist is expected to be in even greater demand during the coming years than ever before. With public awareness of the need for more medical-health service and their increased use of hospital facilities, there will be concurrent with new and expanded laboratory facilities, a need for Pathologists to direct the technical and scientific examinations. The number of new positions for Pathologists in Utah may not be great in any one year but the percentage increase for this occupation will be very favorable.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
a foreign language, etc., and in your advanced schooling such courses as bacteriology, medicinal chemistry, drug analysis, pharmacology and drug store management. You may be able to complete a portion of your internship during school vacation or by working after school hours or weekends.

There is only one college of pharmacy in Utah at this time (1966). It was established on the University of Utah campus in Salt Lake City in 1946. You can also enroll in a pre-pharmacy course at Brigham Young University and Weber College and transfer to a recognized college of pharmacy at the end of one or two years' academic study. Internship can be served in any pharmacy as long as you are supervised by a registered pharmacist.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

How can you tell if you are the right person for the pharmacist's occupation? A well-known pharmacist with a national reputation and over thirty years' experience suggests you will need the following traits to become a happy and successful pharmacist: you should have a liking for cleanliness and orderliness; you must be meticulous as deviation in a prescription can cause tragic consequences. As a pharmacist you must be studious in order to keep abreast of scientific developments of new drugs and medicines; you should have a natural aptitude for science; you should be a person of high ethical character who likes to deal with people; and you must like to keep store with its attendant detail of inventories, ordering, invoices and housekeeping.

HOW MUCH DO PHARMACISTS EARN IN UTAH?

As a registered pharmacist, you can expect $100 to $125 a week to start, and after a few years' experience it is not unusual for a pharmacist to earn from $500 to $700 a month in Utah. A pharmacist who operates his own drug store or prescription counter may, if he is a good business manager, develop an income ranging between $10,000 and $20,000 a year.

WHAT IS THE EMPLOYMENT OUTLOOK FOR PHARMACISTS IN UTAH?

You may expect a moderate increase in the number of pharmacists in Utah in the next decade. In 1940 the census reported 250 pharmacists; this number grew to 350 in 1950. The 1965 figure is estimated to be 600 and the forecast for 1975 is 700 or more. Population and business growth is the main reason, but rising medical care standards and the increased percentage of both young and old people in the population will tend to require more pharmacy services. Shorter hours and establishment of new shopping center stores will also create some job openings. In addition to new positions there will also be job openings for pharmacists to replace those who are promoted to management positions, transfer, go into business for themselves, retire, or die.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get more details about this occupation from any of the local public employment offices. Their locations are shown on the facing of this Job Guide. The "Occupational Outlook Handbook" published by the Bureau of Labor Statistics of the U. S. Department of Labor, will also be of interest to anyone thinking of a career in this or a related occupation. The Utah Pharmacy College, the pharmacist who fills your drug prescriptions, your public or school librarian or your school counselor will welcome your inquiry.
PHYSICAL THERAPIST

The occupation of the person who assists the physician in the treatment of fractures and sprains, as well as muscular and nervous disorders by exercise and electrical or mechanical manipulations is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Physical therapists (formerly called physiotherapists) help persons with muscle, nerve, joint, or bone diseases or injuries to overcome their disabilities. Following physicians' instructions, they treat a variety of disorders through physical exercise, the use of mechanical apparatus, and applications of massage, heat, light, water, or electricity. Most of their patients are accident victims, crippled children, and disabled older persons.

To obtain information needed in developing a treatment program, physical therapists perform muscle and nerve tests. They keep records of their patients' progress and attend conferences at which the progress of patients is discussed. In many instances, they help disabled persons to accept their physical handicaps and learn how to live with their limitations. Therapists teach patients how to perform exercises and to use and care for braces, crutches, and artificial limbs. They may also show members of patients' families how to continue treatments at home.

Physical therapists are members of a rehabilitation team which is directed by a physician and may include a nurse, clinical social workers, occupational therapist, psychologist, vocational counselor, and other specialists. Although qualified physical therapists may treat all types of patients, some specialize in working with children, amputees, paraplegics, or victims of poliomyelitis, cerebral palsy, arthritis, or muscular dystrophy. They may instruct physical therapy students, as well as students of related professions and other health workers.

WHERE DO PHYSICAL THERAPISTS WORK IN UTAH?

The majority of Utah's Physical Therapists are employed by the larger hospitals of the five county area of Box Elder, Davis, Salt Lake, Utah and Weber. They also work in the Rehabilitation Centers, Outpatient Clinics, Nursing Homes and Medical Research Centers as well as the special workshops or clinics for handicapped people of several distinct age groups.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS OF THE OCCUPATION?

Educational requirements beyond a college degree include the completion of a course of training in accordance with minimum essentials for physical therapy schools as prescribed by Council on Medical Education and Hospitals of American Medical Association. Educational standards are in a state of change. Latest information can be obtained from American Physical Therapy Association or Council on Medical Education and Hospitals.

Beginning staff Physical Therapists require no additional training or experience except in certain instances. One to two years' experience may be required for supervisory positions. Must be member or eligible for membership in American Physical Therapy Association or American Registry of Physical Therapy Technicians. Must be aware of relative value and limitations of each piece of equipment.
and skilled in use of a broad range of modalities. Is able to apply knowledge of anatomy and physiology to treatment of patient, and know how to position patients with various conditions for different types of treatment.

WHAT PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Physical Therapist has responsibility for the care and safety of patients during treatment, for observing all necessary precautions in use of equipment to prevent retarding healing process or injuring patient, for carrying out treatment in accordance with physician's prescription and for observing all hospital rules relative to care and treatment of patients, for care of equipment and apparatus; economical use of supplies, linens, and utilities; and cleanliness of department area.

The Physical Therapist stoops, pulls, pushes, and fingers when giving massages; they lift, carry and manipulate equipment. Visual acuity to perceive reactions to treatment and to read instruments is another necessary trait. A willingness to work with realization that errors may have serious consequences for patient, and to work with a variety of types of patients, many of whom are in disturbed conditions, is an important asset.

Gentleness and sympathy in dealing with patients, alertness to detect symptoms of unfavorable reactions, accuracy in adjustment of sensitive electrical instruments and in timing of treatments, considerable initiative and judgment involved in administering treatments as prescribed by physician and in interpreting patients' reactions, developing and maintaining work schedules, preparing reports of treatments and results, and adapting therapeutic exercises and equipment to patients when required, are other requirements. They work under general supervision, following standardized therapeutic procedures.

HOW MUCH DO PHYSICAL THERAPISTS EARN IN UTAH?

Utah's Physical Therapists report earnings ranging from about $5,000 a year for relatively inexperienced graduates of this discipline to some $6,000 or $7,000 a year for Registered Therapists. A few Physical Therapists in top supervisory positions will of course have somewhat higher salaries approaching the neighborhood of $10,000 to $12,000 yearly.

WHAT IS THE EMPLOYMENT OUTLOOK FOR PHYSICAL THERAPISTS?

Physical Therapy is a rapidly growing field. In Utah 44 (original and renewal) licenses were issued to Physical Therapists in 1960 and 63 licenses were issued in 1963. If this rate of growth continues, the profession may well number over one hundred by the early part of the 1970 decade. Present case loads are heavy as there is currently an inadequate supply of adequately trained therapists. This branch of the healing arts offers personal satisfaction and job security for those that want to help people walk again.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

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The medically trained professional licensed to diagnose and treat people who are injured or in poor health is the subject of this job guide.

**NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB**

Physicians diagnose diseases and treat people who are injured, or in poor health. In addition, they are concerned with the prevention of disease and with the rehabilitation of people who are injured or ill. They generally examine and treat patients in their own offices and in hospitals, but they also visit patients at home when necessary. Some physicians combine the practice of medicine with research or college teaching.

Full-time research or teaching positions or performance of administrative work in hospitals, professional associations, and other organizations occupy the time of some physicians, others engage in writing and editing medical books. Almost half the physicians engaged in private practice are general practitioners, often referred to as "family doctors," the others are specialists in one of the 32 fields recognized by the medical profession.

Physicians in recent years have shown a marked trend toward specialization. Among the largest specialties are surgery, internal medicine, pediatrics (medical care of children), pathology (diagnosing changes in body tissues), obstetrics (child birth), gynecology (women's diseases), psychiatry (mental disorders), radiology (use of X-ray, radium and other radioactive sources), ophthalmology (the eye and its diseases), and otolaryngology.

**WHERE DO PHYSICIANS WORK IN UTAH?**

Physicians work in offices where they meet, diagnose and examine patients. They perform their major surgery in modern hospital operating rooms. Even minor surgery and routine examination is conducted in a clinical laboratory setting with several doctors often sharing reception and bookkeeping as well as office facilities. The medical specialty of each member of such a team of doctors is often carefully considered in order for each one's skills to properly supplement those of the remaining members of the group. Over 600 doctors—more than half those in Utah—live and practice medicine in Salt Lake City. Doctors in isolated areas are using airplanes and fast automobiles for ambulance service to transport patients to a hospital.

**WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB?**

You obtain a license to practice medicine from the Utah Department of Registration at the State Capitol in Salt Lake City. To qualify for a license you must have graduated from an approved medical school, pass a licensing examination and serve a one-year internship. In order to enter the Utah College of Medicine you must pass a physical examination, have successfully completed the prescribed premedical curriculum, take a Medical College Admissions Test, file an application and pay required fees and deposits.

The premedical curriculum of science and general education requirements specified in Utah College of Medicine's catalog adds up to 138 quarter hours or three years of college work; you may find it desirable, however, to gain maturity and diversify you
background by completing a four-year premedical course leading to a Bachelor of Arts or Science Degree with a major in medical biology.

To obtain your degree as a Doctor of Medicine, you must pass all of the required courses at the College of Medicine and have served your fourth year "in residence," your third year as an "inpatient clerkship," your second year in study of courses in pharmacology, pathology, public health, radiology, and bacteriology, and your first year in such major course study subjects as anatomy, biochemistry, physiology, and introductory courses in public health and psychiatry.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

You should have above average intelligence, an interest in science and a strong desire to become a physician before you decide on this demanding career. You also need good judgment, ability to make decisions in emergencies and emotional stability as much of your work, while appearing to be dramatic or glamorous, actually involves human tragedy and suffering.

You must be studious and willing to keep studying all your working days to keep abreast of the continuing changes and occurrences in the field. Medicine is also perhaps the most costly of any occupation to learn—are you prepared to choose this occupation—financially?

Eight or nine years study and training beyond high school coupled with the expenses of fitting up your office and building up your clientele will cost in the neighborhood of $25,000 - $30,000. In addition to patience, optimism, idealism, honesty and liking people, you will need a strong body to meet the physical demands of being on call twenty-four hours a day.

HOW MUCH DO PHYSICIANS EARN IN UTAH?

Physicians, as a rule, prefer not to discuss the financial rewards of their profession other than to say they earn a comfortable living. One recent national survey reported the average income from professional fees of physicians to be $18,000 a year. Possibly the average for Utah would be a little less, about $16,000 or $17,000. Doctors employed on a salary basis and those with less than five years' practice are reported to be earning between $10,000 and $15,000 a year.

WHAT IS THE EMPLOYMENT OUTLOOK FOR PHYSICIANS IN UTAH?

Utah needs more physicians. The medical requirements of the people in this state are increasing at a faster rate than doctors are being trained to take care of them. The growth of population, the longer age expectancy and increased use of medical facilities and services all point to a continued growth in the number of new Utah positions that will occur for doctors in the next decade. There are also some openings that will occur because of death and retirement. Women comprise about six per cent of the profession. In 1940, Utah had 576 doctors, in 1950 the number was 796 according to the census. The 1960 estimate is about 1,100 and the 1970 forecast is close to 1,500.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL INFORMATION AND CAREER GUIDANCE?

You can obtain information at any of the twelve local Utah public employment offices whose locations are shown on the face of this Job Guide; at the Utah Medical College; by inquiring of the Utah State Medical Society, 42 South Fifth East, Salt Lake City; any of its county affiliates or your family doctor. The "Occupational Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics also contains information about this and related occupations which will be of interest to anyone thinking of this career field.
PSYCHIATRIC AIDE

The occupation discussed in this job guide is concerned with assisting professional nursing service personnel in a hospital in caring for mentally ill patients.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

The psychiatric aide administers physical and psychological nursing care and treatment for mentally ill patients usually in a hospital unit or ward situation. Their behavior is guided and their fears are calmed by providing understanding and care in accordance with established therapeutic principles. The experienced aide assists in the orientation of new employees and their acquaintanceship with the patients and conversely.

The psychiatric aide guides the patient in assuming responsibilities for the activities of daily living. Patients are encouraged to participate in various kinds of responsibilities. Patients are encouraged to participate in various kinds of responsive group activity including productive recreational, social and miscellaneous. The aide encourages and assists mentally ill patients with improvements in their personal hygiene and appearance. Patients' behavior under the various daily situations are observed and reported.

The psychiatric aide carries out procedures relating to admissions and discharges as well as transfers of patient to other groups, units or wards in the hospital. The Aide supervises activities incidental to the routine maintenance of the physical environment. Mealtime habits are observed to assure each patient receives adequate nourishment. May participate in tube feeding techniques when necessary. May contact patient's family or relatives.

The psychiatric aide utilizes nursing skills in the total care of mentally ill patients, dispenses or injects medications under verbal or written orders of psychiatrist (nurse or physician) records medications on patient's chart, takes blood pressure, administers oxygen, applies dressings and bandages as needed, may assist with post mortem, may perform other hospital tasks as required.

WHERE ARE PSYCHIATRIC AIDES EMPLOYED IN UTAH?

Most of Utah's some 400 Psychiatric aides are employed either at the Utah State Hospital in Provo, Utah County or at the United States Veterans Hospital at Fort Douglas in Salt Lake County. Some people refer to this occupation as Nurse Aides or Assistants; Institutional, ward or hospital attendant or orderly. It is usually considered that a mentally ill person requires a higher degree of specialized nursing care than other types of patients hence the designation Psychiatric Aide is usually preferred for the unlicensed assistant who helps professional psychiatrists, physicians and registered or licensed nurses.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR PSYCHIATRIC AIDES?

Most employers prefer high school graduates with good mental and physical health for the psychiatric aide position. They seek mature people with tact, patience, and emotional stability who have a desire to assist the mentally ill and can meet difficult situations and perform unpleasant tasks without complaint.
The inexperienced person hired to work as a psychiatric aide will usually receive about a year's on-the-job training in the proper care and treatment of the mentally ill with particular attention to psychiatric and psychological therapeutics. The trainees will work as a member of a team and be in close association with an older experienced aide until thoroughly versed in the performance of duties.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The Psychiatric Aide should have verbal aptitude, numerical ability, clerical perception and intelligence, motor coordination and manual dexterity. Also required is the temperament to perform a variety of tasks subject to frequent change and interruption with composure. Clear speech and good hearing are also essential attributes.

This is considered a heavy type of work as certain mentally ill patients must at times be restrained for their own safety. Also there is considerable lifting when invalid patients are being bathed and clothed. The psychiatric aide does considerable walking during the shift but may occasionally stand or sit down. As patients are cared for on a 24 hour day, 7 day a week basis, some shift work may be involved.

HOW MUCH DO PSYCHIATRIC AIDES EARN IN UTAH?

Basically three pay scales seem to be involved in this occupation. Psychiatric Aides employed by the State start at about $250 a month and progress in eight salary steps to about $350. Experienced aides with supervisory duties in addition to nursing care may reach as high as $450 a month in a few instances. Psychiatric Aides employed by the Federal Government (which gives preference in employment to Veterans) start their non-licensed nursing care people at about $3,800 a year with progressive pay steps to about $5,200 and higher for civil service supervisory assignments. Psychiatric Aides working in private hospitals usually receive a wage scale somewhat comparable to the Government rates.

WHAT IS THE EMPLOYMENT OUTLOOK FOR THIS OCCUPATION?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation and other developments seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services, job opportunities for Psychiatric Aides will undoubtedly share in the increase.

Hospital administrators have determined that professional nursing shortages make it imperative that unlicensed psychiatric aides be employed wherever and whenever possible. Custodial and chronically ill patients are areas where this seems particularly practicable and certainly enhances the employment opportunities for this occupation.

If present rates of expansion and replacement continue to prevail, their number will continue to increase during the next decade. The number of Psychiatric Aides employed in Utah at this time is not known. Unlicensed nursing personnel will experience along with the professional nursing staffs a favorable rate of increase. This group of occupations which includes Psychiatric Aides as well as Ward Attendants, Orderlies, and Nurse Aides - both male and female - is forecast to increase in numbers from about 2500 to 4000 by 1975.

WHERE CAN YOU GO FOR ADDITIONAL OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Dept. of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
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REHABILITATION COUNSELOR

The occupation of the person who specializes in counseling adults who desire to take training courses leading to new work or social activities is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB

The rehabilitation counselor interviews each physically or mentally disabled person to obtain as much information as possible about him, his emotional problems, and the nature of his disabilities. During the early interviews, the counselor attempts to establish free and easy communication to ensure a relationship of mutual trust and confidence.

Information developed in the interviews is used with other medical, psychological, and social data to help the handicapped person in evaluating himself in relation to the kind of work that is suitable to his physical and mental capacity. A plan of rehabilitation may then be worked out jointly by the counselor, the handicapped person, and those providing medical treatment and other special services.

The counselor holds regular interviews with the disabled person to discuss the program, check on the progress made, and help resolve problems. When employment becomes appropriate the counselor assists in finding a suitable job and often makes followup visits to be sure that the placement is satisfactory.

An increasing number of counselors specialize in a particular area of rehabilitation; for example, some work almost exclusively with the blind, some with alcoholics, and others with the mentally ill or retarded. Additional specialities are expected to develop as services for other types of difficult cases are included in rehabilitation programs.

The time spent in the direct counseling of each individual depends upon the person and the nature of his disability as well as the counselor's work load. Some rehabilitation counselors may have the responsibility for as many as 200 persons in various stages of rehabilitation; on the other hand, those with less experience, or specialized counselors working with the severely handicapped, may handle relatively few cases.

In addition to working directly with the handicapped person, the counselor must also maintain close contact with other professional people working with handicapped persons, members of their families, other agencies and civic groups, and private employers and business groups who hire the handicapped. The counselor is often responsible for related activities, such as employer education and community publicity for the rehabilitation program.

WHERE ARE REHABILITATION COUNSELORS EMPLOYED IN UTAH?

The majority of Utah's Rehabilitation Counselors are employed in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. They work for Federal and state government departments, rehabilitation centers, sheltered workshops, and other agencies with programs of job placement for the disabled.
WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR THIS JOB?

A primary academic requirement for this professional occupation is graduation from a University with course credits in counseling, psychology and related fields. The requirements are not always uniform as to the specific kind and amount of education specified by the hiring authorities. Some employers prefer a counselor with a masters degree.

Rehabilitation counselors with work experience in such related fields as vocational counseling and placement, social work, psychology, education, and other types of counseling are preferred by some agencies. Many of the job opportunities for this profession are subject to civil service or merit examinations, standards and regulations. An applicant must usually pass a written competence examination and interview before an examining board.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

The rehabilitation counselor should have patience, an understanding of human behavior and a capacity for working with people in solving their problems. Aptitudes needed include intelligence, verbal and numerical ability; interests should include a desire to be of service to others and in the science of human behavior.

The rehabilitation counselor usually performs his functions inside an office building at a desk when interviewing clients. Good speech and hearing are important. Some time may be spent outside the office, visiting the client's family, discussing his abilities and vocational interests with prospective employers or training agencies.

HOW MUCH DO REHABILITATION COUNSELORS EARN IN UTAH?

The entry wage for relatively inexperienced rehabilitation counselors at the middle of the 1960 decade in Utah was in the $400 to $500 a month wage range. Experienced rehabilitation counselors with some job tenure usually earn in the wage range of $500 to $700 per month. The counselor with additional responsibilities such as supervision or an assignment to complex or especially difficult responsibilities would of course receive the higher salary.

WHAT IS THE EMPLOYMENT OUTLOOK FOR REHABILITATION COUNSELORS?

The Rehabilitation Counselor is an important member of the Health Service team and the occupation is growing at a fast rate. It is one of the smaller segments of the larger counseling classification. Opportunities for adequately trained and capable people are frequent, in fact the demand is currently exceeding the supply.

The forecast for future years is favorable and opportunities for Rehabilitation Counselors to find positions are expected to occur at frequent intervals.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation described in this job guide is that of the person who inspects the sanitary condition of places where food or drink is prepared or sold and attempts to obtain compliance with legal requirements.

**NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB**

The sanitarian inspects and grades hotels, trailer camps, recreational areas, tourist motels, restaurants, cafes, lunch and drink stands and similar establishments for sanitary conditions and facilities. A determination is made as to their cleanliness and compliance to legal standards and sanitary practices. A discussion is held with the owner or manager of the establishment explaining suggested correctional practices or lack of conformance to standards and law.

The sanitarian inspects milk pasteurization plants and equipment as well as farm or commercial dairies supplying fresh milk for consumption. Dairy farmers and milk plant operators are instructed relative to methods, techniques and equipment that will meet sanitary standards and legal requirements. Samples are taken of milk and milk products for laboratory inspection. Determines grade qualifications of the dairy and makes report of findings.

The sanitarian inspects and determines the potability of public water supplies. Samples of water are collected under varying conditions to determine its potability and freedom from disease or contamination. Swimming pools and other public bathing facilities are inspected for compliance to regulations. Public drinking fountains are visually examined and samples taken to assure purity.

The sanitarian inspects viscera of slaughtered animals for evidence of disease, retaining suspected carcasses for veterinary or other further examination. The processing, handling and marking of meats and meat products is inspected for cleanliness and compliance with sanitary regulations as well as the premises and facilities of the slaughtering or meat packing establishment. Suggestions for improvement or compliance and a report of findings are made.

The sanitarian investigates complaints made about unsanitary conditions such as improper garbage or toilet facilities, improper sewage disposal etc., and takes steps to secure compliance with sanitary laws and ordinances. Related duties and tasks are performed as assigned or required by supervisor or employer to obtain public cooperation and a more sanitary environment.

WHERE DO SANITARIANS WORK IN UTAH?

The majority of Utah sanitarians have their headquarters in the five county area of Box Elder, Davis, Salt Lake, Utah, and Weber. A few work in the smaller communities and rural areas of the state. While they will spend some time in the office preparing reports and receiving assignments, the largest portion of a sanitarian’s time is spent visiting and examining the various premises for conformance to standards of sanitation.
WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR SANITARIANS?

Most Utah employers require a sanitarian who has graduated from an accredited college with major courses in fields related to general sanitation. Substitution of experience or graduate study is considered by some employers under certain conditions. The higher grade and salary positions carry the greater requirements.

A sanitarian is expected to have a working knowledge of general sanitation as it applies to water supply and pollution control, refuse and sewage disposal, swimming pool operation, milk and other food sanitation, epidemiology and communicable disease control, public relations principles and related sciences such as biology and bacteriology.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

A sanitarian must pass an examination to obtain a license to practice in Utah as a registered sanitarian. Verbal, numerical and spatial ability, intelligence are desirable aptitudes. Interests should include work of a scientific and technical nature and the welfare of people. The sanitarian should have a temperament suitable to the evaluation of data on the basis of fact and experience. Good health and vision are needed; some walking and driving an auto between inspection points and the writing of reports is involved.

HOW MUCH DO SANITARIANS EARN IN UTAH?

A relatively inexperienced college graduate may be offered a salary in the $350 - $450 a month range on his first Utah job. An experienced sanitarian with job tenure will be paid in the $500 - $700 a month salary range, the higher amounts to those with additional responsibilities of supervision or complex and difficult assignments.

WHAT IS THE EMPLOYMENT OUTLOOK FOR SANITARIANS?

Employment opportunities are forecast to increase for Sanitarians at a favorable rate for some years in the future. The Utah Department of Business Regulation issued 86 licenses to practice this occupation in 1959. This number had increased to 101 by 1963; an increase at the rate of between 3 and 4% a year.

It is expected the coming years will see an even stronger growth rate as the public comes to recognize the importance of the functions of this important member of the Health Service team. The early part of the 1970 decade will undoubtedly see as many as 150 Sanitarians employed within the borders of the State.

WHERE MAY YOU OBTAIN ADDITIONAL OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
SURGICAL TECHNICIAN

The surgical technician occupation described in this job guide is concerned with assisting the surgeon in the hospital operating room by supplying the proper instruments as well as cleaning and caring for the instruments and equipment after surgery.

NATURE OF THE WORK AND DESCRIPTION OF THE OCCUPATIONAL TASKS BASIC TO THE JOB.

The surgical (or operating room) technician assists a surgeon preparing for and during an operation. The technician first prepares for the operation by dressing in sterile gowns and gloves, cap and mask, then follows standard procedures for personal cleanliness while in operating room. The surgical technician assists in preparing the patient for an operation by washing, shaving and sterilizing the area of the body to be operated upon. Patients are assisted with dressing or undressing as required by surgical procedures or hospital policy.

The surgical technician assists the surgeon to dress for the operation and by final preparation and positioning of patient. Sheets and towels are draped according to physician's instructions and type of operation to be performed. Autoclaved instruments and other articles are placed in specific and prescribed order.

The surgical technician assists the surgeon by handing or receiving surgical instruments and related equipment or materials as needed or requested throughout the operation. A thorough knowledge of operating room techniques and the human anatomy is utilized during the operating procedures to prevent contamination.

The surgical technician disposes of used supplies and places sheets and linens in laundry basket or chute after the operation. The instrument table and used instruments are removed to workroom and washed preparatory to sterilization in the autoclave. Performs related duties as required.

WHERE DO SURGICAL TECHNICIANS WORK IN UTAH?

Surgical technicians (or operating room technicians) as implied by the job title are employed by hospitals and assigned to work in the operating room. The majority, therefore, are to be found in the Wasatch Front area where Utah's large hospitals are located. Provo, Ogden and Salt Lake City positions for surgical technicians far outnumber those provided by all other communities combined.

WHAT ARE THE TRAINING AND EDUCATIONAL REQUIREMENTS OF THIS JOB?

Surgical technicians are specialized nursing care personnel with some four to six months' training in operating room procedures, in assisting surgeons, and in handling and cleaning surgical instruments and equipment. They must know terminology and instrument usage as well as human anatomy and physiology. This specialized training is designed for hospital personnel who have completed the equivalent of the educational requirements of a licensed practical nurse and have demonstrated a capacity for acquiring the necessary additional skill and knowledge.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

The surgical technician should have verbal ability, clerical perception, motor coordination, and manual dexterity as well as good hearing and vision. They should
be interested in serving others and of a temperament that will permit frequent change in duties with composure.

The surgical technician must be able to observe aseptic techniques throughout the operating procedure, have a memory for detail, have physical stamina to work rapidly and with accuracy over long periods of time, as well as to be able to endure the strain and pace, pressure, and tension of operating room activity.

HOW MUCH DO SURGICAL TECHNICIANS EARN IN UTAH?

This is a relatively new occupation with a limited experience or history from which to analyze wage scales and long-range earnings. One hospital is known to be paying $1.65 an hour to selected nursing employees during the training period as surgical technicians. Another employer is reported to have offered from $2.00 to $2.25 an hour to employees having completed a six month course in operating room procedures. It seems likely that fully qualified and experienced surgical technicians will soon be earning in the neighborhood of $4,000 to $5,000 a year.

WHAT IS THE EMPLOYMENT OUTLOOK FOR SURGICAL TECHNICIANS IN UTAH?

Hospital facilities continue to expand throughout Utah and with Medicare legislation recently enacted it seems likely the rate of expansion will grow at an even faster rate than it has these past several years. With more operating rooms and more surgeons, the demand for surgical technicians will be greater than its present relatively high level.

Hospital administrators have determined that professional nurses are needed on other assignments and that specially trained and qualified surgical technicians are capable of assisting surgeons in the operating room procedures. The demand for this occupational skill is expected to be favorable for many years to come.

The number of surgical technicians presently employed in Utah is thought to number close to one hundred. If present rates of expansion and replacement continue to prevail, their number will more than double in the next few years. Nursing personnel with an aptitude in this area of service will undoubtedly find many rewards from a short course of training as a surgical technician.

WHERE CAN YOU OBTAIN MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U.S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation of the professionally trained person who treats animals for sickness, disease or injuries is the subject of this job guide.

NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB

Veterinarians (doctors of veterinary medicine) treat sick and injured animals. They also give advice regarding the care and breeding of animals and help to prevent the outbreak and spread of diseases among them, by physical examinations, tests, and vaccinations. Because many animal diseases can be transmitted to people, this work is important to the public health.

About 40 percent of all veterinarians are general practitioners who take care of both large and small animals. Of those who are specialists, the greatest number treat small animals, often operating hospitals with boarding facilities for dogs and cats. Others specialize in the treatment of certain kinds of animals, such as prize livestock, poultry, or thoroughbred horses.

Many veterinarians inspect meat, poultry, and other foods as a part of the Federal and State public health programs. A small number teach in colleges or do public health or other research related to animal diseases, drugs, and foods. They may treat animals on the farm - sometimes in open fields - or in veterinary clinics or hospitals.

Since animals cannot describe how they feel, veterinarians must diagnose diseases and injuries on the basis of appearance and behavior, and by taking temperatures and making tests. When necessary, veterinarians operate on animals and prescribe and administer drugs, medicines, biologicals, serums, and vaccines. They use X-ray machines, hypodermic needles, syringes, and other medical equipment especially adapted for use with animals.

WHERE ARE VETERINARIANS EMPLOYED IN UTAH?

The majority of Utah's Veterinarians are employed or engage in private practice in the populous five county area of Box Elder, Davis, Salt Lake, Utah and Weber. They are employed as inspectors by such government agencies as the Department of Agriculture, Public Health Service, and the various military organizations. A number of veterinarians operate animal hospitals or clinics for pets; some limit their practice to either small or large animals. Large livestock farms in agricultural areas of Utah offer still other locations of employment for veterinarians.

WHAT ARE THE EDUCATION AND TRAINING REQUIREMENTS FOR VETERINARIANS?

You must have a license to practice veterinary medicine in Utah. An applicant for a license must be a graduate of an approved school of veterinary medicine and have passed a State Board examination. Each of the some twenty veterinary colleges in the United States require entrants to have completed a 2-3 year pre-veterinary program of college study emphasizing chemistry and science subjects.

Most veterinarians begin their career as an assistant to or junior partner of an established practitioner or as an officer in the military service or as an inspector.
research worker in the Public Health or agricultural Department under Civil Service appointment regulation. If adequately financed a graduate of a veterinary college could establish his own pet clinic or animal hospital or purchase one already established.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

There are more people applying for admission to veterinary colleges than can be accommodated by present facilities so admission requirements and qualifications are held to a high standard. A good scholastic record is important as is good health, a farm background and a liking for animals. Good vision and ability to make frequent use of arms and hands is needed.

A veterinarian should be prepared to work long irregular hours, and if in a rural area, to spend considerable time in traveling to and from distant farms and livestock ranches in all kinds of weather. Proper precautions will minimize the hazards of disease, infection and personal injury. Verbal, numerical and spatial ability, intelligence and motor coordination are some of the more important aptitudes a veterinarian should possess.

HOW MUCH DO VETERINARIANS EARN IN UTAH?

Newly graduated and relatively inexperienced veterinarians can expect to start to work in government employment at $6,000 - $7,000 a year. The American Veterinary association recently surveyed the income of their members to find over 50% reported between $8,000 and $15,000 per year. As with other professionals there appears to be a reluctance to divulge income information but from limited data available in Utah it would seem safe to say the amount is over $1,000 per month for experienced practitioners with an established practice.

WHAT IS THE EMPLOYMENT OUTLOOK FOR VETERINARIANS?

The employment outlook for Veterinarians is considered favorable and the number of their occupational opportunities are expected to increase during future years at about the same rate as the average of other health occupations. In addition to the opportunities to engage in private practice some positions will become available as instructors and research personnel.

The increased demand for veterinary services is closely related to economic conditions and the market value of farm livestock.

The Utah Business Regulation Department issued licenses to 158 Veterinarians in 1959; four years later in 1963 it issued 168 licenses to practice Veterinary Medicine within the borders of this State. This is not quite a 3% per year rate of increase. It is believed the number of Veterinarians would reach the 200 level in Utah by the early 1970 decade.

WHERE CAN YOU OBTAIN ADDITIONAL OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
WARD CLERK

The clerical worker who assists the nursing personnel on a hospital ward by answering telephone, typing reports, directing visitors, and performing similar tasks is the subject of this job guide.

NATURE OF WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB.

The ward clerk answers telephone calls, gives information, routes calls, and relays and takes messages as required. Receives and directs visitors to the ward. Prepares patient's charts upon admittance to the ward. Prepares a card for each patient containing name, age, doctor's name, admittance date, hospital number, diagnosis, and surgery date, if appropriate, and files for the use of the nurses.

The ward clerk prepares forms containing necessary information for permanent filing or storage at time of discharge. Occasionally takes patients to the Business Office or to their means of conveyance at time of discharge. The ward clerk keeps patients' charts current by adding as necessary reports for information of physician and for permanent reference. Fills out and routes charge slips for services or equipment used by patients. Orders various supplies used in the ward. Prepares a diet list using the cardex files. May contact patients for meal preference. Fills special requests and orders that have been missed for patients by ordering the food requested from the Dietary Department.

The ward clerk prepares a daily report sheet by entering the date, doctor's name, patient's name, diagnosis, number of days patient is confined, for use by the team leader. Prepares a census slip for use by the Nursing Office. Prepares various reports and maintains records as required. Performs other related duties as required or assigned.

WHERE DO WARD CLERKS WORK IN UTAH?

As the name implies, the ward clerk is assigned to the nursing unit of a hospital contained in a separate wing or floor of the institution. The majority of ward clerks are employed in the larger hospitals of the Wasatch Front.

WHAT ARE THE EDUCATIONAL AND TRAINING REQUIREMENTS FOR THIS POSITION?

Education: High school graduation or equivalent, including courses in English, typing, spelling, and arithmetic; or high school graduation supplemented by commercial school courses in these subjects.

Training and Experience: This is usually an entry job. Worker is given on-the-job training. Clerical experience desirable but not essential.

Job Knowledge: Sufficient knowledge of typing, English, spelling, and arithmetic to compile reports, make out requisitions, maintain simple records, and perform various related clerical tasks. Knowledge of medical and technical terms used in reports. Familiarity with hospital rules and policies and location of various departments.
WHAT PERSONAL CHARACTERISTICS AND PHYSICAL ACTIVITIES ARE REQUIRED?

Responsibility for: Accuracy and currentness of records. Expediting delivery of messages. Promptly reporting needed repairs or related services.

Physical Demands: Good physical and mental health. Good hearing and speech to take and deliver messages. Finger dexterity to type and prepare charts.

Special Demands: Willingness to perform routine duties on continuous basis and to work under close supervision. Tact and diplomacy in contacts with patients, visitors, and co-workers. Discreetness in matters relating to patients and their problems. Attention to detail. Works under close supervision.

HOW MUCH DO WARD CLERKS EARN FOR WORK IN UTAH HOSPITALS?

The usual annual earnings of ward clerks employed by the larger Utah hospitals averages about $3,000 per year or $250 per month. The ward clerk generally receives a higher wage than the nurse aide and a lower wage than the licensed practical nurse.

WHAT IS THE EMPLOYMENT OUTLOOK FOR WARD CLERKS IN UTAH?

A continued expansion of hospital facilities is forecast for the next decade. The recent enactment of Medicare legislation and other developments seems to assure an even faster rate than occurred these past few years. With more hospital beds and more professional services being forecast, it appears that job opportunities for ward clerks will undoubtedly share in the increase.

The number of ward clerks employed in Utah at this time is thought to number close to several hundred. If present rates of expansion and replacement continue to prevail their number will continue to increase during the next decade. Ward clerks will experience along with the professional and nursing staffs of a hospital and health service organization a favorable rate of increase.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL AND CAREER GUIDANCE INFORMATION?

You can get information at any of Utah's twelve local public employment service offices or at your nearest hospital. The "Occupational Outlook Handbook" published by the U. S. Department of Labor's Bureau of Labor Statistics contains much information on this job and related health occupations. Your school counselor or public library are other sources of information.
The occupation of the medical X-ray technician discussed in this job guide is concerned with the utilization of X-ray examination for treatment of hospital patients.

**NATURE OF THE WORK AND DESCRIPTION OF OCCUPATIONAL TASKS BASIC TO THE JOB.**

The medical X-ray technician performs diagnostic examinations by taking pictures of the internal parts of the body the physician wishes to examine. The pictures taken by the X-ray machine may reveal foreign matter or an injury as well as enable the physician to discover malformations or malfunctioning of various parts of the human body.

The medical X-ray technician may prepare the patient for examination by having an opaque substance (barium salts) swallowed to shade portions of the anatomy and provide for better visibility. The patient is carefully positioned and protected by a lead plate from excessive exposure. The technician determines the proper current voltage and exposure time by regulating the machine's controls.

The medical X-ray technician performs therapeutic treatment using special X-ray or radiation equipment as directed by a radiologist (a physician specializing in this area) to control or combat certain diseases such as tissue infection or cancer. Some technicians perform a combination of these duties and others especially in large hospitals may specialize in taking only one kind, for example, chest X-rays of suspected TB infectants or dental X-rays before teeth are extracted or cavities filled.

The medical X-ray technician may be required to process and develop film as well as keep a record of patients who received services. They are expected to keep the X-ray machine clean and make minor repairs so that it is always in good working order. The technician may also operate other types of apparatus and perform related work as required by the hospital.

**WHERE ARE MEDICAL X-RAY TECHNICIANS EMPLOYED IN UTAH?**

The majority of Utah's X-ray technicians are employed by and work in the larger hospitals which are situated in the Salt Lake, Ogden, Provo areas. A minority of the occupation find employment in the hospitals of the less populated areas and in medical clinics. Industrial inspectors using X-ray equipment to detect flaws in materials and products of manufacturing plants are not included in this job guide classification and description.

**WHAT TRAINING AND EDUCATION ARE REQUIRED FOR THIS OCCUPATION?**

The American Medical Association has approved approximately 800 schools offering X-ray technology. These programs are usually twenty-four months in duration and require candidates to have completed high school. Students who have studied biology, chemistry, physics, mathematics and general science subjects will have better chances of success.

Most courses in X-ray technology include classes in anatomy, physiology, nursing, darkroom chemistry, medical ethics, radiographic exposure, X-ray therapy, equipment operation and maintenance, physics, radiation protection and safety, and X-ray
department administration. Experienced and qualified X-ray technicians may pass an examination to place their names upon the American Registry.

WHAT SPECIAL PERSONAL CHARACTERISTICS AND ACTIVITIES ARE REQUIRED?

The medical X-ray technician should have good health and stamina. People with a tendency toward anemia should avoid this occupation because of possible exposure to radiation. Frequent use of arms and hands as well as good vision are required. The technician should have the aptitudes of verbal and spatial ability, an interest in the welfare of people and in work of a technical nature. Careful work habits are important as careless handling of equipment and materials may result in radiation burns or poisoning of a serious nature.

HOW MUCH DO MEDICAL X-RAY TECHNICIANS EARN IN UTAH?

Wage rates for medical X-ray technicians vary from a low of about $4,000 a year for entry workers to approximately $6,000 annually for fully qualified experienced technicians. Specific rates for government workers will be found in the Civil Service announcements of job vacancies in the area of your job preference.

WHAT IS THE EMPLOYMENT OUTLOOK FOR MEDICAL X-RAY TECHNICIANS IN UTAH?

Shortage of trained medical X-ray technicians is likely to continue for several years. The demand for workers skilled in this occupation is greater than the number of persons expected to graduate from approved courses according to a recent report from the American Society of X-ray technicians.

The increased use of X-ray equipment in the diagnosis and treatment of disease and the expansion of these programs in the medical health services are the primary factors indicating growth for this occupation. There seems no doubt that the medical X-ray technician's occupation will experience a favorable growth rate for some years to come.

The 1960 U. S. census reported almost 700 "medical and dental technicians" employed in Utah at that time. An important segment of this classification is the X-ray technician but their exact number is not known. There are also some X-ray machine operators employed in industry to examine products for defects. This would be a closely related occupation.

WHERE CAN YOU GO FOR MORE OCCUPATIONAL OR CAREER GUIDANCE INFORMATION?

You can get more details about this occupation from any of the local public employment offices. Their locations are shown on the face of this Job Guide. The "Occupational Outlook Handbook" published by the Bureau of Labor Statistics of the U. S. Department of Labor will also be of interest to anyone thinking of a career in this or a related occupation. Your public or school librarian will welcome your inquiry.
<table>
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<tr>
<th>Office</th>
<th>Manager</th>
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<tr>
<td>Brigham City</td>
<td>J. Dele Madsen</td>
<td>144 South Main Street 84302</td>
<td>723-5261</td>
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<tr>
<td>Cedar City</td>
<td>J. Frank Dalley</td>
<td>106 East Second North 84720</td>
<td>586-6585</td>
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<td>Logan</td>
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<td>446 North First West 84321</td>
<td>752-5381</td>
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<td>Ogden</td>
<td>Harvey N. Rich</td>
<td>2655 Adams Avenue 84401</td>
<td>399-2181</td>
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<td>Heber</td>
<td>Rey L. Arnold</td>
<td>7 South Main Street 84632</td>
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<td>Herbert J. Allen</td>
<td>547 North Main Street 84759</td>
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<td>Price</td>
<td>Val B. Jennings</td>
<td>685 East Second South 84501</td>
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<td>Provo</td>
<td>LeRue E. Thurston</td>
<td>190 West 800 North 84601</td>
<td>373-7500</td>
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<td>Richfield</td>
<td>Milan T. Oldroyd</td>
<td>65 South First East 84701</td>
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<td>Salt Lake Temp. &amp; Agri.</td>
<td>Milton G. Ramsey</td>
<td>235 West Fourth South 84101</td>
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<td>Leonal A. Blakesley</td>
<td>168 Social Hall Avenue 84111</td>
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<td>Sidney J. Bellamy</td>
<td>415 South Main Street 84111</td>
<td>322-1433</td>
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<td>Salt Lake Youth Office</td>
<td>Carl R. Berg</td>
<td>345 South Sixth East 84102</td>
<td>322-1433</td>
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<tr>
<td>Vernal</td>
<td>Larry K. Wardle</td>
<td>780 West Main Street 84078</td>
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